

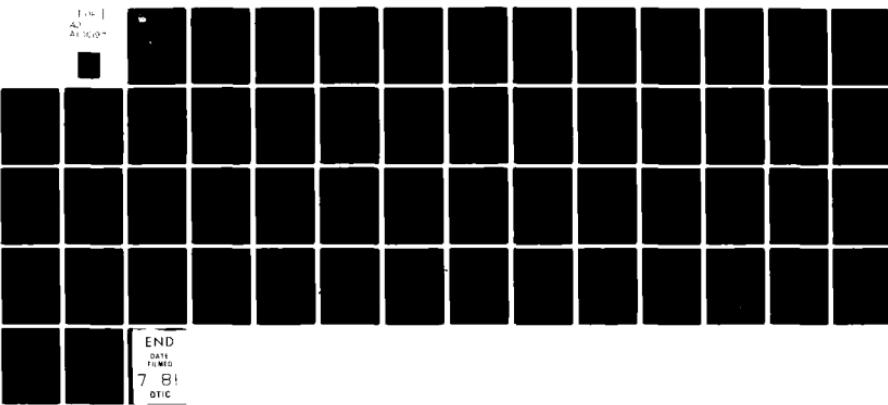
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AIR FORCE OCCUPATIONAL MEASUREMENT CENTER RANDOLPH AFB TX F/6 5/9  
AIRCRAFT CONTROL AND WARNING (AC & W) RADAR CAREER LADDER AFSC --ETC(U)  
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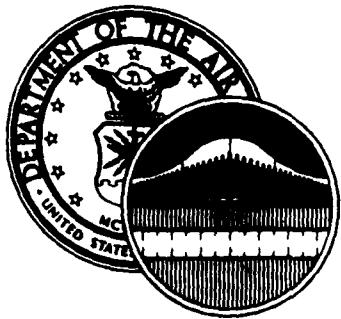
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UNITED STATES AIR FORCE

# OCCUPATIONAL SURVEY REPORT

DTIC  
OCT 1981

ELECTRONICS PRINCIPLES INVENTORY (EPI).

AIRCRAFT CONTROL AND WARNING (AC & W)  
RADAR CAREER LADDER

AFSC 303X2

AFPT 90-XXX-222

FEBRUARY 1981

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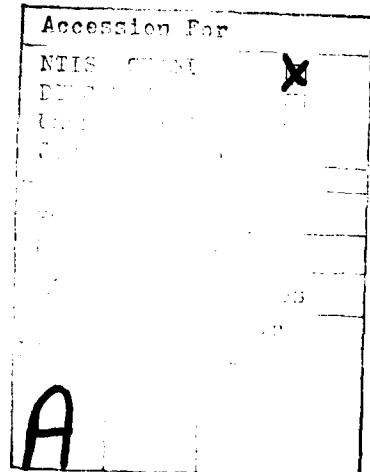
OCCUPATIONAL ANALYSIS PROGRAM  
USAF OCCUPATIONAL MEASUREMENT CENTER  
AIR TRAINING COMMAND  
RANDOLPH AFB, TEXAS 78148

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## PREFACE

This report presents the preliminary results of an Air Force Electronics Principles Survey of the Aircraft Control and Warning (AC & W) Radar career ladder (AFSC 303X2). The project was undertaken at the request of Mr. James R. Haupt, Training Manager, Keesler AFB, MS. Authority for conducting electronics principles inventories is contained in AFR 35-2. Computer printouts from which the report was produced are available for use by operating and training officials.

The Electronics Principles Inventory (EPI) was originally developed by Mr. Hendrick W. Ruck and Major Thomas J. O'Conner in 1976. It was revised and updated by Mr. James L. Slovak, Inventory Development Specialist, and Captain Frederick B. Bower, Jr., Occupational Survey Analyst, in 1979.

Captain Michael D. Hill and Mr. Guy B. Cole analyzed the data and wrote the final report. This report has been reviewed and approved by Lieutenant Colonel Jimmy L. Mitchell, Chief, Airman Career Ladders Analysis section, Occupational Analysis Branch, USAF Occupational Measurement Center, Randolph AFB, Texas 78148.

Copies of this report are available to air staff sections, major commands, and other interested training and management personnel upon request to the USAF Occupational Measurement Center, attention to the Chief, Occupational Analysis Branch (OMY), Randolph AFB, Texas 78148.

This report has been reviewed and is approved.

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Commander  
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ELECTRONIC PRINCIPLES INVENTORY REPORT  
AIRCRAFT CONTROL AND WARNING (AC & W) RADAR CAREER LADDER  
(AFSC 303X2)

INTRODUCTION

This is a preliminary report of the Electronic Principles Survey of the Aircraft Control and Warning (AC & W) Radar career ladder (AFSC 303X2). It was completed by the Occupational Analysis Branch, USAF Occupational Measurement Center in February 1981. This preliminary report is intended primarily to provide an overview of electronic principles data by skill levels for immediate use by technical training school personnel. A more comprehensive display of the electronic principles data will be provided in a follow-on report to be published in a few months.

Purpose

The aim of the electronic principles survey program is to provide reliable data on the extent electronic fundamentals training is actually used in the performance of various Air Force jobs.

General Background

The EPI is a knowledge based job inventory which identifies the range of electronic principles personnel must understand to perform any electronics oriented job. Training managers can use EPI data in conjunction with OSR data to determine precisely what specialists do and what electronic principles they employ on the job. By using EPI and OSR data in this manner, training managers satisfy one of the most important aspects of the instructional systems development (ISD) process:

Determine what specialists do on the job before developing a course to train individuals to perform the job.

The USAF Occupational Measurement Center provides job performance data to training personnel in the form of occupational survey reports and training extracts. Such data are presented in task statements which are quantified according to percent members performing, percent time spent, task difficulty, and training emphasis. This task statement data provides a very precise picture of the kinds of functions personnel in a specific AFSC or shred actually perform at a specific point in time. If OSR data is properly applied, it can be a powerful tool in the design of training content.

However, OSR task statements are difficult to translate into knowledge requirements. This is especially true of tasks which require some degree of electronic knowledge. Prior to the development of the EPI, training managers and command representatives had to rely on subjective interpretations of task statements to arrive at the kinds of knowledge required to perform electronic oriented tasks. This requirement of a more objective criteria for determining the amount of electronic knowledge necessary to perform the job resulted in the development of the EPI.

### History

The initial request to develop a method of determining electronic fundamentals used on the job was made by Major General Charles G. Cleveland, the Deputy Chief of Staff, Technical Training, Air Training Command, in 1974. At the time, General Cleveland needed some means of accurately measuring how much electronic fundamentals training was actually used on the job. He envisioned using EPI data to streamline training by eliminating "nice to know" information in the area of electronic theory.

At the general's request, Dr. Walter E. Driskill, Chief of the Occupational Analysis Branch, set up a task force to conceptualize, develop, and apply a method for measuring job usage of electronic principles. The task force was composed of personnel from the Occupational Analysis Branch who were well qualified in theoretical physics and electronics. These personnel also had considerable expertise in task analysis and survey development. With the assistance by these individual, electronic experts from five ATC Technical Training Centers, averaging 12 years maintenance experience and four years of electronic principles instruction experience, spent three weeks working on the development of the EPI. This tentative EPI was then reviewed and refined by over 300 maintenance personnel from SAC, TAC, ADC, MAC, and AFSC as well as personnel at the Electronic Engineering Department of the USAF Academy and the Air Force Human Resources Laboratory. The resulting EPI contained 1,257 items under 62 subject matter areas covering all electronic principles training given at the five ATC Technical Training Centers.

During 1977, this EPI was administered to more than 11,000 airmen in 54 different Air Force specialties. Since the aim of the EPI was to determine the extent electronic fundamentals training was actually used in the performance of Air Force jobs, the logical person to survey was one at the worker level with sufficient time on the job to understand all that it entailed. Consequently, only 5-skill level personnel with more than 18 months active duty service were surveyed. Results from this project were used extensively by the various training managers to refine their respective plans of instruction.

This original EPI was revised in 1978 and 1979 to more accurately reflect some of the computer oriented and various other electronic principles. The revision was accomplished by Mr. James L. Slovak, Inventory Development Specialist, and Captain Frederick B. Bower, Jr., Occupational Survey Analyst, after consultation with electronic principles instructors at each of the technical training centers. Following this extensive review, the EPI was reprinted in its current format.

### Description

The EPI differs from the usual task oriented survey in two major respects. First, the EPI asks two general questions: "what do you do?" and what electronic knowledge do you use in performing your job?" The usual task survey concentrates on only one question: "what do you do?" The second difference is the EPI can be administered to anyone who works with electronics. That is, it is general in nature, unlike the usual job inventory which is aimed at a single specialty within a career field.

### Administration

This Electronic Principles inventory was administered to personnel in the Aircraft Control and Warning (AC & W) Radar (AFS 303X2) career ladder during the period January through June 1980. Personnel were selected to participate in this survey so as to insure an accurate representation across all MAJCOMs and paygrade groups. Table 1 reflects the major command distribution of personnel assigned as of the fall of 1980 and the distribution of incumbents in the survey sample. The 478 members making up the final sample represent 47 percent of the 1,023 total assigned. Table 2 shows the paygrade distribution of the sample as compared to the assigned strength. Although the number of airmen sampled was quite low, the sampling in the E-4 through E-6 paygrades was very adequate and should accurately reflect the Electronic Principles characteristic of this career ladder.

TABLE 1  
COMMAND REPRESENTATION OF SURVEY SAMPLE

<u>MAJOR COMMAND</u>	<u>PERCENT ASSIGNED</u>	<u>PERCENT SAMPLED</u>
TAC	58	64
USAFE	17	13
AFCC	13	14
ATC	4	5
PACAF	3	2
AFSC	2	1
OTHER	<u>3</u>	<u>1</u>
TOTAL	100	100

TOTAL 303X2 ASSIGNED - 1,023  
TOTAL 303X2 SAMPLED - 478  
PERCENT SAMPLED - 47%

TABLE 2  
PAYGRADE DISTRIBUTION OF SURVEY SAMPLE

	<u>PERCENT ASSIGNED</u>	<u>PERCENT SAMPLED</u>
AIRMEN	14	0
E-4	16	36
E-5	36	34
E-6	20	21
E-7	14	8
NOT REPORTED	<u>0</u>	<u>1</u>
TOTAL	100	100

PRESENTATION OF RESULTS

Personnel responded "yes" or "no" to the 1,332 electronic principles questions as related to their present job. A Group Summary (GPSUM) computer printout is provided in the Appendix portion of this report. Page 1 of the GPSUM lists the six selected groups identified for this report. Pages 2-46 show the percentage of the incumbents responding to the EPI items. The computer program results display the percent members answering "yes" to the subject area questions. The reader can locate a specific subject area by referring to the Appendix page number as listed in Table 3. For example, the Transformers area results are given on pages 6-7 of the GPSUM. The percentage of survey respondents indicating use of specific electronic principles ranged from high in areas such as Meters/Multimeters (p. 3), Soldering (p. 10), and Oscilloscopes (p. 12) to low in areas such as Infrared (pp. 42-43), Lasers (pp. 43-44), and Display Tubes (p. 44-45).

TABLE 3  
EPI SUBJECT AREAS

<u>SEQUENCE OF SUBJECT AREAS</u>	<u>SUBJECT AREAS TITLE</u>	<u>BEGINNING ITEM NUMBER</u>	<u>GPSUM PAGE NUMBER</u>
1	MATHEMATICS	A1	2
2	DIRECT CURRENT AND VOLTAGE	A16	2
3	RESISTORS/RESISTIVE CIRCUIT	A29	2
4	METER/MULTIMETER	B64	3
5	ALTERNATING CURRENT	B72	4
6	INDUCTORS/INDUCTIVE REACTANCE	B79	4
7	CAPACITORS AND CAPACITIVE	C104	5
8	TRANSFORMERS	C136	6
9	MAGNETISM	C176	7
10	RCL CIRCUITS	D188	7
11	TIME CONSTANTS	D234	9
12	FILTERS	D241	9
13	COUPLING	E257	10
14	SOLDERING	E268	10
15	RELAYS	E281	11
16	MICROPHONES AND SENSING DEVICES	F299	11
17	SPEAKERS	F313	12
18	OSCILLOSCOPES	F328	12
19	SEMICONDUCTOR DIODES	G346	12
20	TRANSISTORS	G388	14
21	TRANSISTOR AMPLIFIERS	G412	15
22	SOLID-STATE SPECIAL PURPOSE DEVICES	H458	17
23	POWER SUPPLIES	H472	18
24	OSCILLATORS	H502	19
25	MULTIVIBRATORS	I533	19
26	LIMITERS AND CLAMPERS	I548	20
27	ELECTRON TUBES	I558	20
28	ELECTRON TUBE AMPLIFIERS AND CIRCUITS	J597	21
29	SPECIAL PURPOSE ELECTRON TUBES	J604	22
30	HETERODYNING AND MODULATION-DE MODULATION (MODEMS)	J618	22
31	AM SYSTEMS	K625	22
32	FM SYSTEMS	K645	23
33	NUMBERING SYSTEMS	K667	24
34	LOGIC FUNCTIONS	L691	25
35	BOOLEAN EQUATIONS	L724	26
36	COUNTERS	L736	27
37	TIMING CIRCUITS	L758	27
38	USE OF SIGNAL GENERATORS	M770	28

TABLE 3 (CONTINUED)

## EPI SUBJECT AREAS

<u>SEQUENCE OF SUBJECT AREAS</u>	<u>SUBJECT AREAS TITLE</u>	<u>BEGINNING ITEM NUMBER</u>	<u>GPSUM PAGE NUMBER</u>
39	MOTORS AND GENERATORS	M784	28
40	METER MOVEMENTS	N814	29
41	SATURABLE REACTORS AND MAGNETIC AMPLIFIERS	N826	29
42	WAVESHAPING CIRCUITS	N838	30
43	SINGLE OR INDEPENDENT SIDEBAND SYSTEMS	0852	30
44	PULSE MODULATION SYSTEMS	0882	31
45	ANTENNAS	0922	33
46	TRANSMISSION LINES	P965	34
47	WAVEGUIDES AND CAVITY RESONATORS	P995	35
48	MICROWAVE AMPLIFIERS AND OSCILLATORS	P1038	37
49	REGISTERS	Q1115	39
50	STORAGE DEVICES	Q1122	40
51	DIGITAL TO ANALOG AND ANALOG TO DIGITAL CONVERTERS	Q1149	41
52	PHANTASTRONS	Q1165	41
53	SCHMITT TRIGGERS	Q1166	41
54	CABLE FABRICATION	R1169	41
55	INPUT/OUTPUT (PERIPHERAL) DEVICES	S1171	41
56	PHOTO SENSITIVE DEVICES	S1185	42
57	SYNCHRONOUS VIBRATIONS (CHOPPER CIRCUITS)	S1186	42
58	INFRARED SYSTEMS	T1195	42
59	LASERS	T1223	43
60	DISPLAY TUBES	T1257	44
61	TELEVISION	T1273	45
62	PROGRAMMING	U1283	45
63	DB AND POWER RATIOS	U1327	46

## **APPENDIX A**

OCCUPATIONAL ANALYSIS PROGRAM  
(USAFCOM AFATC) RANDOLPH AFB TX

PCT MARS RESP 'YES' - 303X2 DAFSC/CONUS/OS GRPS

TABULATION OF PERCENT MEMBERS RESPONDING 'YES' TO USE OF ELECTRONIC PRINCIPLES  
BY 303X2 DAFSC/CONUS/OS SEAS GROUPS IN THE 303X1,2,3 EPI CAREER FIELD.

REPORTS ON THE FOLLOWING GROUPS WERE REQUESTED

GROUP IDENTITY = SPC014	ALL AMN DAFSC 303X2
GROUP IDENTITY = SPC016	ALL AMN DAFSC 30352
GROUP IDENTITY = SPC017	ALL AMN DAFSC 30372
GROUP IDENTITY = SPC022	ALL AMN DAFSC 30399
GROUP IDENTITY = SPC025	ALL AMN DAFSC 30352 IN CONUS
GROUP IDENTITY = SPC026	ALL AMN DAFSC 30352 OVERSEAS

CONTAINING	478 MEMBERS.
CONTAINING	272 MEMBERS.
CONTAINING	206 MEMBERS.
CONTAINING	12 MEMBERS.
CONTAINING	65 MEMBERS.
CONTAINING	209 MEMBERS.

PCT MBR'S RESP - VES-1 DAFSC/CONUS/JG GROUPS  
 TASK GROUP SUMMARY  
 PERCENT MEMBERS PERFORMING

OCCUPATIONAL ANALYSIS PROGRAM  
 USAFOMC (ATC) RANDOLPH AFB TX

	DY-TSK	A.I.	SKL	SKL	US	US 0's	
		SPC	SPC	SPC	SPC	SPC	
1	1 MATH - USE INSTRUMENTS, IN WHICH IT IS NECESSARY TO AMPLIFY OR ATTENUATE READINGS BY POWERS OF 10	5	7	9	5	5	
2	2 MATH - USE PUBLICATIONS, IN WHICH IT IS NECESSARY TO MULTIPLY OR DIVIDE BY A POWER OF 10 BEFORE APPLYING THE INFORMATION	5	7	9	5	5	
3	3 MATH - REARRANGE AND SOLVE FORMULAS OR EQUATIONS	73	78	66	67	82	MATHEMATICS
4	4 MATH - CALCULATE THE SQUARE ROOT OF A QUANTITY	27	22	34	42	28	2C
5	5 MATH - SOLVE FOR UNKNOWN QUANTITIES	39	35	44	50	42	33
6	6 MATH - CONVERT NUMBERS TO LOGARITHMS	22	18	24	58	23	16
7	7 MATH - USE LOGARITHM TABLES IN CALCULATIONS	29	26	34	58	31	24
8	8 MATH - SOLVE QUADRATIC EQUATIONS	18	15	21	17	22	12
9	9 MATH - USE THE NATURAL SYSTEM OF LOGARITHMS	13	11	16	50	14	10
10	10 MATH - PERFORM CALCULATIONS ON VECTOR QUANTITIES	20	17	25	42	23	14
11	11 MATH - WORK WITH TRIGONOMETRIC FUNCTIONS SUCH AS SINE, COSINE, OR TANGENT	34	30	40	58	49	23
12	12 MATH - DETERMINE AREAS OF PLANE FIGURES SUCH AS AREAS OF CIRCLES OR TRIANGLES	16	13	20	17	18	11
13	13 MATH - SOLVE OR USE SIMULTANEOUS EQUATIONS	12	11	14	8	20	9
14	14 MATH - SOLVE OR USE PROPORTIONS	38	39	38	58	46	36
15	15 MATH - USE MATHEMATICAL EXPONENTS OR SUBSCRIPTS IN OTHER THAN POWERS OF 10	34	29	40	50	38	26
16	16 2 DC - USE THE TERM VOLTAGE OR VOLT (V)	90	90	88	92	89	91
17	17 2 DC - USE THE TERM ELECTROMOTIVE FORCE (EMF)	45	43	48	67	54	41
18	18 2 DC - USE THE TERM OHM	88	88	88	92	89	89
19	19 2 DC - USE THE TERMS ION	38	38	42	52	52	33
20	20 2 DC - USE THE TERM DYNE	15	17	13	25	20	17
21	21 2 DC - USE THE TERM AMPERE	86	86	87	92	85	87
22	22 2 DC - USE THE TERM NEUTRON	23	26	18	0	35	25
23	23 2 DC - USE THE TERM COULOMB	24	25	23	0	35	23
24	24 2 DC - USE THE TERM PROTON	24	27	19	8	38	24
25	25 2 DC - USE THE TERM ELECTRON	74	73	76	83	77	72
26	26 2 DC - USE THE TERM CURRENT	88	88	88	92	88	89
27	27 2 DC - USE THE TERM WATTAGE	86	84	89	92	85	84
28	28 2 DC - DETERMINE HOW BATTERIES MUST BE CONNECTED TOGETHER FOR A SPECIFIC VOLTAGE AND/OR CURRENT	35	35	36	75	45	32
29	29 3 RESISTORS/RESISTIVE CIRCUITS - WORK WITH	65	66	63	67	63	66
30	30 3 RESISTORS - INSPECT	74	80	67	75	66	78
31	31 3 RESISTORS - CLEAN	66	75	53	42	83	73
32	32 3 RESISTORS - ADJUST	71	78	62	50	86	76
33	33 3 RESISTORS - MEASURE	72	78	65	58	85	76
34	34 3 RESISTORS - USE OR REFER TO TEMPERATURE COEFFICIENTS OF	32	32	67	38	30	
35	35 3 RESISTORS - USE OR REFER TO SYMBOLS FOR CARBON	56	56	92	69	53	
36	36 3 RESISTORS - USE OR REFER TO SYMBOLS FOR FIXED WIRE	64	67	60	92	77	65
37	37 3 RESISTORS - USE OR REFER TO SYMBOLS FOR SLIDE TAP	55	59	49	67	71	56
38	38 3 RESISTORS - USE OR REFER TO SYMBOLS FOR RHEOSTATS	70	74	64	83	74	75
39	39 3 RESISTORS - USE OR REFER TO SYMBOLS FOR POTENTIOMETERS	76	80	70	92	85	79
40	40 3 RESISTORS - USE OR REFER TO SYMBOLS FOR FIXED FILM	44	51	92	55	51	35

PCT MARS RESP \*YES\* - 303x2 DAFSC/CINCSUS/OS GRPS  
TASK GROUP SUMMARY  
PERCENT MEMBERS PERFORMING

OCCUPATIONAL ANALYSIS PROGRAM  
USAFOMC (ATCH) RANDOLPH AFB TX

PERCENT MEMBERS PERFORMING	Dy-Tsk									
	5	5	5	5	5	5	5	5	5	5
	ALL 0's	SKI. SPC								
A 41 3 RESISTORS - USE COLOR CODES WHICH INDICATE OHMIC VALUE OF RESISTANCE	76	81	70	92	85	90	79	81	70	75
A 42 3 RESISTORS - USE COLOR CODES WHICH INDICATE TOLERANCE	74	78	68	92	87	78	76	81	70	86
A 43 3 RESISTORS - USE COLOR CODES WHICH INDICATE FAILURE RATE	21	22	19	33	26	21	21	81	70	86
A 44 3 RESISTORS - USE OR PREFER TO SCHEMATIC SYMBOLS WHICH REPRESENT BATTERIES, FUSES, CONDUCTORS, LAMPS, OR SWITCHES	73	76	69	75	75	77	75	81	70	86
A 45 3 RESISTIVE CIRCUITS - SERIES - USE OR REFER TO TOTAL RESISTANCE IN	68	71	64	83	77	69	77	81	70	86
A 46 3 RESISTIVE CIRCUITS - SERIES - USE OR REFER TO TOTAL CURRENT IN	65	68	61	83	72	67	72	81	70	86
A 47 3 RESISTIVE CIRCUITS - SERIES - USE OR REFER TO INDIVIDUAL VOLTAGE DROPS IN	65	69	61	83	75	67	75	81	70	86
A 48 3 RESISTIVE CIRCUITS - SERIES - USE OR REFER TO POWER DISSIPATION IN	55	57	53	75	68	55	75	81	70	86
A 49 3 RESISTIVE CIRCUITS - SERIES - USE OR REFER TO TOTAL RESISTANCE IN	66	69	63	83	74	67	74	81	70	86
A 50 3 RESISTIVE CIRCUITS - SERIES - USE OR REFER TO TOTAL CURRENT IN	62	65	59	83	60	64	60	81	70	86
A 51 3 RESISTIVE CIRCUITS - SERIES PARALLEL - USE OR REFER TO INDIVIDUAL VOLTAGE DROPS IN	62	64	59	75	74	61	74	81	70	86
A 52 3 RESISTIVE CIRCUITS - SERIES PARALLEL - USE OR REFER TO INDIVIDUAL BRANCH CURRENTS IN	56	58	54	75	65	56	65	81	70	86
A 53 3 RESISTIVE CIRCUITS - SERIES PARALLEL - USE OR REFER TO POWER DISSIPATION IN	52	54	50	75	63	52	63	81	70	86
A 54 3 PARALLEL RESISTIVE CIRCUITS - USE OR REFER TO TOTAL RESISTANCE IN	67	69	65	75	78	67	78	81	70	86
A 55 3 PARALLEL RESISTIVE CIRCUITS - USE OR REFER TO TOTAL CURRENT IN	62	64	60	75	72	63	72	81	70	86
A 56 3 PARALLEL RESISTIVE CIRCUITS - USE OR REFER TO INDIVIDUAL VOLTAGE DROPS IN	62	65	58	75	74	63	74	81	70	86
A 57 3 RESISTIVE PARALLEL CIRCUITS - USE OR REFER TO INDIVIDUAL BRANCH CURRENTS IN	55	55	54	75	65	54	65	81	70	86
A 58 3 RESISTIVE PARALLEL CIRCUITS - USE OR REFER TO POWER DISSIPATION IN	51	52	50	67	62	51	62	81	70	86
A 59 3 SERIES RESISTIVE PARALLEL RESISTIVE, OR PARALLEL RESISTIVE CIRCUITS - CALCULATE TOTAL RESISTANCE FOR	62	63	60	67	74	60	67	81	70	86
A 60 3 SERIES RESISTIVE PARALLEL RESISTIVE, OR PARALLEL RESISTIVE CIRCUITS - CALCULATE TOTAL CURRENT FOR	57	59	53	67	66	57	66	81	70	86
A 61 3 SERIES RESISTIVE PARALLEL RESISTIVE, OR PARALLEL RESISTIVE CIRCUITS - CALCULATE INDIVIDUAL VOLTAGE DROPS FOR	56	59	53	67	68	56	68	81	70	86
A 62 3 SERIES RESISTIVE PARALLEL RESISTIVE, OR PARALLEL RESISTIVE CIRCUITS - CALCULATE INDIVIDUAL BRANCH CURRENTS FOR	50	51	50	67	62	48	62	81	70	86
A 63 3 SERIES RESISTIVE, SERIES PARALLEL RESISTIVE, OR PARALLEL RESISTIVE CIRCUITS - CALCULATE POWER DISSIPATION FOR	46	47	45	58	58	44	58	81	70	86
B 64 1 METERS/MULTIMETERS - USE TO MEASURE RESISTANCE	76	81	70	75	86	79	86	81	70	86
B 65 1 METERS/MULTIMETERS - USE TO MEASURE VOLTAGE	76	81	70	75	86	79	86	81	70	86

PCT MEMRS RESP \*YES\* 303X2 : AFSC/CONUS/SOS GRPS  
 TASK GROUP SUMMARY  
 PERCENT MEMBERS PERFORMING

OCCUPATIONAL ANALYSIS PROGRAM  
 USAFOMC (ATC) RANDOLPH AFB TX

			5	7	9	5	5	5	5	5	5
			A.I.	SKL	SKL	US	O'S	SPC	SPC	SPC	SPC
			014	016	C17	Q22	Q25	026	014	016	014
DY-TSK											
1	66 1	METERS/MULTIMETERS - USE TO MEASURE CURRENT	72	76	67	75	82	75	72	76	75
1	67 1	METERS/MULTIMETERS - USE TO MEASURE POWER	73	76	70	75	83	74	71	74	73
1	68 1	METERS/MULTIMETERS - USE TO MEASURE FREQUENCY	71	74	67	75	83	72	49	51	46
1	69 1	METERS/MULTIMETERS - USE TO MEASURE TEMPERATURE	49	51	33	65	47	56	59	51	17
1	70 1	METERS/MULTIMETERS - USE TO MEASURE PRESSURE	56	59	51	17	55	51	56	59	51
1	71 1	METERS/MULTIMETERS - USE TO MEASURE LIGHT LEVELS	6	8	0	15	5	15	6	8	0
1	72 2	AC - USE OR REFER TO EFFECTIVE VOLTAGE (RMS)	68	65	71	93	75	63	78	79	77
1	73 2	AC - USE OR REFER TO PEAK VOLTAGE	78	79	92	86	77	70	73	72	75
1	74 2	AC - USE OR REFER TO AVERAGE VOLTAGE (CCV)	61	64	57	58	61	61	64	64	61
1	75 2	AC - USE OR REFER TO WAVE LENGTH	81	80	82	83	79	79	81	80	82
1	76 2	AC - USE OR REFER TO FREQUENCY	34	33	35	50	46	30	34	33	35
1	77 2	AC - USE OR REFER TO INSTANTANEOUS VALUE	70	71	68	75	80	69	70	71	68
1	78 2	AC - USE OR REFER TO PHASE RELATIONSHIPS	60	64	56	42	58	65	60	64	56
1	79 3	INDUCTORS/INDUCTIVE REACTANCE - WORK WITH INDUCTORS OR CIRCUITS CONTAINING INDUCTORS, OR CHOKE COILS	67	72	62	75	82	69	61	69	50
1	80 3	INDUCTORS/INDUCTIVE REACTANCE - INSPECT INDUCTORS	61	69	50	42	82	66	59	66	49
1	81 3	INDUCTORS/INDUCTIVE REACTANCE - CLEAN INDUCTORS	61	69	50	42	82	66	59	66	49
1	82 3	INDUCTORS/INDUCTIVE REACTANCE - ADJUST INDUCTORS	59	66	49	33	72	65	47	53	38
1	83 3	INDUCTORS/INDUCTIVE REACTANCE - MEASURE INDUCTORS	47	53	38	33	71	48	64	68	59
1	84 3	INDUCTORS/INDUCTIVE REACTANCE - USE OR REFER TO INDUCTION	64	68	59	42	77	66	64	68	59
1	85 3	INDUCTORS/INDUCTIVE REACTANCE - USE OR REFER TO HENRIES	52	56	47	42	58	56	52	56	47
1	86 3	INDUCTANCE/INDUCTIVE REACTANCE - USE OR REFER TO INDUCTIVE REACTANCE	51	56	46	67	66	54	51	56	46
1	87 3	INDUCTORS/INDUCTIVE REACTANCE - USE OR REFER TO COPPER LOSS IN INDUCTORS	12	21	14	8	20	7	12	21	14
1	88 3	INDUCTORS/INDUCTIVE REACTANCE - USE OR REFER TO MYSTERE LOSS IN INDUCTORS	15	22	19	8	23	8	15	22	19
1	89 3	INDUCTORS/INDUCTIVE REACTANCE - USE OR REFER TO EDDY CURRENT LOSS IN INDUCTORS	15	13	19	8	25	9	15	13	19
1	90 3	INDUCTORS/INDUCTIVE REACTANCE - USE OR REFER TO THE GENERAL RULE THAT INDUCTANCE IS PROPORTIONAL TO THE SQUARE OF THE NUMBER OF TURNS OF THE COIL	16	16	16	0	26	13	16	16	0
1	91 3	INDUCTORS/INDUCTIVE REACTANCE - USE OR REFER TO THE GENERAL RULE THAT INDUCTANCE OF A COIL IS DIRECTLY PROPORTIONAL TO ITS LENGTH	14	13	15	0	20	11	14	13	15
1	92 3	INDUCTORS/INDUCTIVE REACTANCE - USE OR REFER TO THE GENERAL RULE THAT THE INDUCTANCE OF A COIL IS DIRECTLY PROPORTIONAL TO THE CROSS SECTIONAL AREA OF THE CORE	12	12	13	0	15	11	12	12	13
1	93 3	INDUCTORS/INDUCTIVE REACTANCE - USE OR REFER TO THE PARTICULAR INDUCTORS USING FORMULAS	15	14	16	0	17	13	13	14	14
1	94 3	INDUCTORS/INDUCTIVE REACTANCE - CALCULATE THE TOTAL INDUCTANCE FOR INDUCTANCE IN SERIES	17	16	19	8	23	14	17	16	19
1	95 3	INDUCTORS/INDUCTIVE REACTANCE - CALCULATE THE TOTAL INDUCTANCE FOR INDUCTANCE FOR INDUCTORS IN PARALLEL	16	17	20	8	25	14	16	17	20

PCT MARS RESP \*YES\* - 30332 DAFSC/CONUS/OS GRPS

OCCUPATIONAL ANALYSIS PROGRAM  
USAFOPC (ATC) RANDOLPH AFB TX

TASK GROUP SUMMARY  
PERCENT MEMBERS PERFORMING

DY-TSK

			5	7	9	5	5
		ALI.	SKL.	SKL.	US	US	US
		SPC	SPC	SPC	SPC	SPC	SPC
B	97 3	INDUCTORS/INDUCTIVE REACTANCE - CALCULATE THE TOTAL INDUCTANCE FOR INDUCTORS IN SERIES-PARALLEL CIRCUITS	18	17	20	8	25
B	98 3	INDUCTORS/INDUCTIVE REACTANCE - USE OR REFER TO THE GENERAL RULE THAT CURRENT LAGS VOLTAGE IN AC INDUCTOR CIRCUITS	36	31	43	25	42
B	99 3	INDUCTORS/INDUCTIVE REACTANCE - CALCULATE INDUCTIVE REACTANCE	22	21	25	33	28
B	100 3	INDUCTORS/INDUCTIVE REACTANCE - USE OR REFER TO THE GENERAL RULE THAT INDUCTIVE REACTANCE IS DIRECTLY PROPORTIONAL TO FREQUENCY	28	25	33	25	37
B	101 3	INDUCTORS/INDUCTIVE REACTANCE - WORK WITH POWER INDUCTORS	45	46	45	50	54
B	102 3	INDUCTORS/INDUCTIVE REACTANCE - WORK WITH AUDIO FREQUENCY INDUCTORS	15	13	19	33	14
B	103 3	INDUCTORS/INDUCTIVE REACTANCE - WORK WITH RADIO FREQUENCY INDUCTORS	54	54	53	67	63
C	104 1	CAPACITORS - WORK WITH CAPACITORS OR CIRCUITS CONTAINING CAPACITORS	70	74	65	67	77
C	105 1	CAPACITORS - INSPECT	70	76	62	83	74
C	106 1	CAPACITORS - CLEAN	63	72	50	42	83
C	107 1	CAPACITORS - ADJUST	63	69	55	33	74
C	108 1	CAPACITORS - TEST	60	66	53	33	75
C	109 1	CAPACITORS - DISCHARGE	65	72	57	42	83
C	110 1	CAPACITORS - MEASURE	49	54	43	50	68
C	111 1	CAPACITANCE - USE OR REFER TO DISTRIBUTED CAPACITANCE	20	18	22	25	31
C	112 1	CAPACITANCE - USE OR REFER TO ORBITAL STRESS OF ELECTRONS IN A DIELECTRIC	5	6	5	8	11
C	113 1	CAPACITANCE - USE OR REFER TO FARADS, MICROFARADS, OR PICOFARADS	70	74	66	75	77
C	114 1	CAPACITANCE - USE OR REFER TO	69	71	66	83	77
C	115 1	CAPACITANCE - USE OR REFER TO DIELECTRIC CONSTANT	23	22	24	17	34
C	116 1	CAPACITANCE - USE OR REFER TO WORKING VOLTAGE RATING OF CAPACITORS	62	61	63	75	68
C	117 1	CAPACITANCE - USE OR REFER TO CAPACITIVE REACTANCE	44	44	43	50	55
C	118 1	CAPACITANCE - USE OR REFER TO CAPACITOR COLOR CODES	42	39	47	67	40
C	119 1	CAPACITANCE - WORK WITH CAPACITORS IN DC CIRCUITS	73	77	67	67	76
C	120 1	CAPACITANCE - WORK WITH CAPACITORS IN AC CIRCUITS	71	75	67	67	82
C	121 1	CAPACITANCE - WORK WITH CAPACITORS IN CIRCUITS WITH BOTH DC AND AC	71	75	67	75	83
C	122 1	CAPACITANCE - CALCULATE FOR PARTICULAR CAPACITORS USING FORMULAS	17	17	16	17	28
C	123 1	CAPACITANCE - USE OR REFER TO THE GENERAL RULE THAT THE DIELECTRIC CONSTANT OF A CAPACITOR IS DIRECTLY PROPORTIONAL TO	14	14	15	8	23
C	124 1	CAPACITANCE - USE OR REFER TO THE GENERAL RULE THAT CAPACITANCE OF A CAPACITOR IS INVERSELY PROPORTIONAL TO THE DIELECTRIC THICKNESS	14	13	15	8	23
C	125 1	CAPACITANCE - CALCULATE THE TOTAL CAPACITANCE OF CAPACITORS IN SERIES	28	25	33	50	34

PCT MBR'S RESP "YES"- 303X2 DAFFSC/CONUS/OS GRPS  
 TASK GROUP SUMMARY  
 PERCENT MEMBERS PERFORMING

	DY-TSK	A.I.L.	S	7	9	5	5 0's
		SPC	SPC	SPC	SPC	SPC	SPC
C 126 1 CAPACITANCE - CALCULATE THE TOTAL CAPACITANCE OF CAPACITORS IN PARALLEL	29	26	34	50	35	23	
C 127 1 CAPACITANCE - CALCULATE THE TOTAL CAPACITANCE OF CAPACITORS IN SERIES-PARALLEL CIRCUITS	24	23	26	33	31	22	
C 128 1 CAPACITANCE - USE OR REFER TO THE GENERAL RULE THAT CURRENT DOES NOT FLOW THROUGH CAPACITORS, IT ONLY APPEARS TO DO SO	41	41	40	50	48	41	
C 129 1 CAPACITANCE - USE OR REFER TO THE GENERAL RULE THAT CURRENT LEADS VOLTAGE IN AC CAPACITOR CIRCUITS	32	29	36	25	38	28	
C 130 1 CAPACITANCE - USE OR REFER TO THE GENERAL RULE THAT CAPACITIVE REACTANCE IS INVERSELY PROPORTIONAL TO FREQUENCY	29	27	33	25	35	25	
C 131 1 CAPACITANCE - CALCULATE CAPACITIVE REACTANCE	19	18	20	33	28	15	
C 132 1 CAPACITANCE - WORK WITH VARIABLE CAPACITORS	69	73	63	58	75	72	
C 133 1 CAPACITANCE - WORK WITH TRIMMER CAPACITORS	57	56	57	58	58	56	
C 134 1 CAPACITANCE - WORK WITH ELECTROLYTIC (FIXED) CAPACITORS	72	76	66	67	82	75	
C 135 1 CAPACITANCE - WORK WITH OTHER FIXED CAPACITORS	70	74	66	67	76	73	
C 136 2 TRANSFORMERS - WORK WITH TRANSFORMERS - INSPECT	65	70	59	75	71	69	TRANSFORMERS
C 137 2 TRANSFORMERS - WORK WITH TRANSFORMERS - CLEAN	69	74	62	83	78	72	
C 138 2 TRANSFORMERS - ADJUST	62	71	50	33	80	68	
C 139 2 TRANSFORMERS - TROUBLESHOOT	52	56	96	17	65	54	
C 140 2 TRANSFORMERS - DISTINGUISH BETWEEN MUTUAL INDUCTION AND MUTUAL INDUCTANCE (M)	61	67	53	42	75	65	
C 141 2 TRANSFORMERS - USE THE SYMBOL FOR MUTUAL INDUCTANCE (M)	9	9	8	0	14	9	
C 142 2 TRANSFORMERS - REFER TO OR USE THE COEFFICIENT OF COUPLING WHEN WORKING WITH	10	10	9	0	12	11	
C 143 2 TRANSFORMERS - CALCULATE TURNS RATIOS USING CURRENT OR VOLTAGE RATIOS	16	17	15	8	27	16	
C 144 2 TRANSFORMERS - REFER TO REFLECTED IMPEDANCE WHEN WORKING WITH	19	19	19	17	20	20	
C 145 2 TRANSFORMERS - CALCULATE IMPEDANCE INTERACTIONS FOR	27	25	29	25	25	26	
C 146 2 TRANSFORMERS - WORK WITH AUTOTRANSFORMERS	10	10	10	8	14	10	
C 147 2 TRANSFORMERS - WORK WITH POWER	45	44	45	58	43	45	
C 148 2 TRANSFORMERS - WORK WITH AUDIO	68	74	61	67	80	72	
C 149 2 TRANSFORMERS - WORK WITH RADIO FREQUENCY	19	16	23	42	15	18	
C 150 2 TRANSFORMERS - WORK WITH SATURABLE CORE	56	55	58	75	58	55	
C 151 2 TRANSFORMERS - CHECK FOR OPEN WINDINGS BY MEASURING RESISTANCE	46	45	58	48	46		
C 152 2 TRANSFORMERS - CHECK FOR SHORTED WINDINGS BY MEASURING RESISTANCE	65	70	59	42	80	67	
C 153 2 TRANSFORMERS - CHECK FOR SHORTED WINDINGS BY MEASURING RESISTANCE	63	48	56	33	77	65	
C 154 2 TRANSFORMERS - CHECK FOR OPEN WINDINGS BY MEASURING RESISTANCE	56	60	52	33	74	55	
C 155 2 TRANSFORMERS - MEASURE RESISTANCE OF WINDINGS TO DETERMINE STEP-UP OR STEP-DOWN TURNS RATIO	28	31	25	40	29		
C 156 2 TRANSFORMERS - MEASURE OUTPUT VOLTAGE TO DETERMINE STEP-UP OR STEP-DOWN TURNS RATIO	42	43	41	42	55	39	

PCT MBR'S RESP \*YES\* - 303x2 DAFSC/CUNUS/OS GRPS

OCCUPATIONAL ANALYSIS PROGRAM  
USAFOC (ATC) RANDOLPH AFB TX

**TASK GROUP SUMMARY  
PERCENT MEMBERS PERFORMING**

**DY-TSK**

		All	SKL	SKL	US	US	0's
		SPC	SPC	SPC	SPC	SPC	SPC
		014	016	C17	022	025	026
	C 157 2 TRANSFORMERS - REFER TO BASIC SYMBOLS	71	75	83	76	75	5
	C 158 2 TRANSFORMERS - REFER TO MULTIPLE SECONDARY-WINDINGS SYMBOLS	67	69	83	72	69	5
	C 159 2 TRANSFORMERS - REFER TO MULTIPLE TAP SYMBOLS	69	73	75	77	72	5
	C 160 2 TRANSFORMERS - REFER TO CENTER TAP SYMBOLS FOR	70	73	83	77	73	5
	C 161 2 TRANSFORMERS - REFER TO AIR CORE SYMBOLS FOR	38	35	44	63	42	33
	C 162 2 TRANSFORMERS - REFER TO IRON CORE SYMBOLS FOR	94	40	50	83	46	40
	C 163 2 TRANSFORMERS - REFER TO VARIABLE TRANSFORMER SYMBOLS FOR	62	64	59	75	68	63
	C 164 2 TRANSFORMERS - REFER TO A COMBINATION OF SYMBOLS FOR	59	60	57	83	62	61
	C 165 2 TRANSFORMERS - DETERMINE PHASE RELATIONSHIPS BETWEEN SECONDARY AND PRIMARY VOLTAGES USING SCHEMATIC SYMBOLS	47	46	48	50	54	44
	C 166 2 TRANSFORMERS - DETERMINE OR REFER TO THE TYPE OF CORE	27	24	32	17	29	22
	C 167 2 TRANSFORMERS - REFER TO OR USE THE GENERAL RULE THAT THE TURN RATIO IS EQUAL TO THE VOLTAGE RATIO	32	30	33	33	40	28
	C 168 2 TRANSFORMERS - USE OR REFER TO STEP-UP OR STEP-DOWN RATIOS	54	56	52	58	65	53
	C 169 2 TRANSFORMERS - CALCULATE VOLTAGE RATIOS USING TURNS RATIOS	22	22	22	8	32	20
	C 170 2 TRANSFORMERS - CALCULATE CURRENT RATIOS USING TURNS RATIOS	16	16	16	0	26	14
	C 171 2 TRANSFORMERS - USE THREE PHASE	58	60	54	75	68	59
	C 172 2 TRANSFORMERS - INSPECT THREE PHASE	55	56	54	83	66	54
	C 173 2 TRANSFORMERS - CLEAN OR LUBRICATE THREE PHASE	45	49	40	33	55	47
	C 174 2 TRANSFORMERS - ADJUST THREE PHASE	38	39	36	17	43	38
	C 175 2 TRANSFORMERS - TROUBLESHOOT THREE PHASE	47	49	44	92	65	94
	C 176 3 MAGNETISM - USE OR REFER TO PERMANENT MAGNETS	97	48	46	50	55	47
	C 177 3 MAGNETISM - USE OR REFER TEMPORARY MAGNETS	30	28	33	8	34	26
	C 178 3 MAGNETISM - USE OR REFER TO RETENTIVITY OF MAGNETIC MATERIALS	15	14	16	0	14	15
	C 179 3 MAGNETISM - USE OR REFER TO RELUCTANCE OF MAGNETIC MATERIALS	12	10	14	0	12	10
	C 180 3 MAGNETISM - USE OR REFER TO PERMEABILITY OF MAGNETIC MATERIALS	14	14	14	0	15	14
	C 181 3 MAGNETISM - USE OR REFER TO RESIDUAL MAGNETISM	19	16	21	0	17	19
	C 182 3 MAGNETISM - USE OR REFER TO MAGNETIC LINES OF FORCE OR FLUX	31	30	33	17	32	30
	C 183 3 MAGNETISM - USE OR REFER TO WEBER'S THEORY OF FLUX	9	10	9	0	12	10
	C 184 3 MAGNETISM - USE OR REFER TO DOMAIN THEORY OF FLUX	10	11	8	0	11	11
	C 185 3 MAGNETISM - USE OR REFER TO MAGNETIC INDUCTION	26	28	29	17	32	28
	C 186 3 MAGNETISM - USE OR REFER TO FLUX DENSITY	22	22	22	17	22	22
	C 187 3 MAGNETISM - USE OR REFER TO SATURABLE REACTANCE	39	32	36	33	35	31
	D 188 1 RCL CIRCUITS - WORK WITH PC, LR, OR RCL CIRCUITS	58	62	53	50	74	58
	D 189 1 RCL CIRCUITS - USE OR REFER TO VECTORS WHEN WORKING WITH RCL CIRCUITS	14	13	15	17	16	11
	D 190 1 RCL CIRCUITS - USE OR REFER TO PYTHAGOREAN THEOREM WHEN WORKING WITH RCL CIRCUITS	12	11	14	0	12	11
	D 191 1 RCL CIRCUITS - USE OR REFER TO SINE WHEN WORKING WITH RCL CIRCUITS	22	21	23	33	31	18
	D 192 1 RCL CIRCUITS - USE OR REFER TO COSINE WHEN WORKING WITH RCL CIRCUITS	21	20	22	33	31	16



PCT MBR'S RESP \*YES\* - 303X2 DAFSC/CONUS/SOS GRPS  
 TASK GROUP SUMMARY  
 PERCENT MEMBERS PERFORMING

OCCUPATIONAL ANALYSIS PROGRAM  
 USAFOMC (ATC) RANDOLPH AFB TX

D Y-TASK	AL1	PERCENT				
		SKL	7	9	5	0's
	SPC	SPC	SPC	SPC	SPC	SPC
D 219 1 RCL CIRCUITS - USE THE ASSUMED VOLTAGE METHOD FOR DETERMINING TOTAL IMPEDANCE FOR PARALLEL CIRCUITS - USE OHM'S LAW FOR DETERMINING TOTAL IMPEDANCE FOR PARALLEL	01*	C16	017	022	025	026
D 220 1 RCL CIRCUITS - CHECK CAPACITORS USING OHMMETERS	10	9	11	8	12	9
D 221 1 RCL CIRCUITS - CHECK CAPACITORS USING SUBSTITUTION	32	29	36	25	29	30
D 222 1 RCL CIRCUITS - CHECK INDUCTORS USING OHMMETERS	55	59	50	33	68	57
D 223 1 RCL CIRCUITS - CHECK INDUCTORS USING SUBSTITUTION	43	44	41	17	55	42
D 224 1 RCL CIRCUITS - CHECK RESISTORS USING OHMMETERS	54	58	50	33	60	55
D 225 1 RCL CIRCUITS - CHECK RESISTORS USING SUBSTITUTION	41	42	40	17	48	41
D 226 1 RCL CIRCUITS - CHECK RESISTORS USING OHMMETERS	60	65	53	67	77	62
D 227 1 RCL CIRCUITS - USE OR REFER TO THE RULE THAT PHASE ANGLE ( $\theta_{TA}$ ) = 0, POWER FACTOR ( $PF$ ) = 1, AND APPARENT POWER ( $PA$ ) = TRUE POWER ( $PT$ ) FOR RESONANT CIRCUITS	36	38	33	25	45	37
D 228 1 RCL CIRCUITS - USE OR REFER TO RESONANT FREQUENCIES FOR RCL CIRCUITS - USE OR REFER TO THE GENERAL RULE THAT IMPEDANCE IS MINIMUM AND CURRENT MAXIMUM AT THE RESONANT FREQUENCY	9	9	8	8	9	9
D 230 1 RCL CIRCUITS - USE OR REFER TO THE GENERAL RULE THAT LINE CURRENT IS MINIMUM AND IMPEDANCE MAXIMUM AT RESONANT FREQUENCY FOR PARALLEL	27	24	32	8	26	23
D 231 1 RCL CIRCUITS - USE OR REFER TO THE GENERAL RULE THAT HALF POWER POINTS ARE AT $70.7$ OF THE PEAK CURRENT VALUE	50	51	49	58	60	50
D 232 1 RCL CIRCUITS - USE OR REFER TO THE GENERAL RULE THAT BANDWIDTH IS INVERSELY PROPORTIONAL TO THE QUALITY OF THE COIL ( $Q$ )	18	19	18	8	23	18
D 233 1 RCL CIRCUIT - DETERMINE HOW CHANGES IN FREQUENCY, RESISTANCE, CAPACITANCE, OR INDUCTANCE WILL AFFECT CURRENT OR PHASE ANGLES	21	21	22	8	25	21
D 234 2 TIME CONSTANTS - WORK WITH USE, OR REFER TO THE GENERAL RULE THAT A CAPACITOR IS FULLY CHARGED OR DISCHARGED AFTER FIVE (5) TIME CONSTANTS - USE OR REFER TO UNIVERSAL CHARTS FOR CIRCUIT CURRENT OR COMPONENT VOLTAGES AFTER A SPECIFIC TIME FOR RC OR LR CIRCUITS	41	40	41	42	43	40
D 235 2 TIME CONSTANTS - USE OR REFER TO THE GENERAL RULE THAT A CAPACITOR IS FULLY CHARGED OR DISCHARGED AFTER FIVE (5) TIME CONSTANTS - USE EQUATIONS OR FORMULAS TO DETERMINE THE TIME REQUIRED FOR CIRCUIT CURRENT OR COMPONENT VOLTAGES TO REACH SPECIFIC VALUES FOR PC OR LR CIRCUITS	27	28	26	42	34	26
D 236 2 TIME CONSTANTS - USE OR REFER TO UNIVERSAL CHARTS FOR CIRCUIT CURRENT OR COMPONENT VOLTAGES AFTER A SPECIFIC TIME FOR RC OR LR CIRCUITS	13	15	11	33	15	15
D 237 2 TIME CONSTANTS - USE EQUATIONS OR FORMULAS TO DETERMINE THE TIME REQUIRED FOR CIRCUIT CURRENT OR COMPONENT VOLTAGES TO REACH SPECIFIC VALUES FOR PC OR LR CIRCUITS	18	18	17	8	25	17
D 238 2 TIME CONSTANTS - USE EQUATIONS OR FORMULAS TO DETERMINE THE TIME REQUIRED FOR CIRCUIT CURRENT OR COMPONENT VOLTAGES TO REACH SPECIFIC VALUES FOR PC OR LR CIRCUITS	19	18	20	8	25	17
D 239 2 TIME CONSTANTS - USE EQUATIONS OR FORMULAS TO DETERMINE COMPONENT VALUES REQUIRED FOR CIRCUIT CURRENT AND COMPONENT VOLTAGES TO REACH SPECIFIC VALUES IN SPECIFIC TIMES	18	18	17	0	22	17
D 240 2 TIME CONSTANTS - USE OR REFER TO THE GENERAL RULE THAT CURRENT IN LR CIRCUITS REACHES ITS MINIMUM VALUE (OR ZERO) AFTER FIVE	17	15	20	17	17	15
D 241 3 FILTER CIRCUITS - WORK WITH FILTERS	59	64	52	58	63	65
D 242 3 FILTER CIRCUITS - INSPECT	59	62	54	67	66	62

OCCUPATIONAL ANALYSIS PROGRAM  
USAFOMC (ATC) RANDOLPH AFB TXTASK GROUP SUMMARY  
PERCENT MEMBERS PERFORMING

			5					5				
			All.	SKL	SKL	US	US	O's	SPC	SPC	SPC	SPC
		DY-TSK	014	016	017	022	025	026				
		D 243 3 FILTER CIRCUITS - CLEAN		55	60	48	17	63	60			
		D 244 3 FILTER CIRCUITS - ALIGN OR ADJUST		48	54	40	17	60	53			
		D 245 3 FILTER CIRCUITS - TROUBLESHOOT TO COMPONENT PARTS OF		49	53	44	25	58	52			
		D 246 3 FILTER CIRCUITS - TROUBLESHOOT TO COMPONENT PARTS OF		53	57	47	25	65	56			
		D 247 3 FILTER CIRCUITS - WORK WITH LOW PASS FILTERS		53	54	51	50	55	55			
		D 248 3 FILTER CIRCUITS - WORK WITH HIGH PASS FILTERS		51	52	49	50	55	52			
		D 249 3 FILTER CIRCUITS - WORK WITH BAND-PASS FILTERS		56	58	52	50	63	57			
		D 250 3 FILTER CIRCUITS - WORK WITH BAND-REJECT FILTERS		39	40	37	50	45	39			
		D 251 3 FILTER CIRCUITS - DON'T REMEMBER WHICH TYPE OF		17	17	0	0	25	15			
		D 252 3 FILTER CIRCUITS - WORK WITH L-SECTION		46	44	49	50	52	43			
		D 253 3 FILTER CIRCUITS - WORK WITH T-SECTION		42	41	45	50	45	42			
		D 254 3 FILTER CIRCUITS - WORK WITH PI-SECTION		45	42	48	50	49	41			
		D 255 3 FILTER CIRCUITS - WORK WITH YTTRIUM IRON GARNET (YIG)		19	18	20	8	46	1C			
		FILTERS										
		D 256 3 FILTER CIRCUITS - USE EQUATIONS OR FORMULAS TO DETERMINE CAPACITANCE OR INDUCTANCE VALUES REQUIRED FOR SPECIFIC FILTERS		14	15	12	8	17	14			
	E 257 1 COUPLING DEVICES OR CIRCUITRY - WORK WITH COUPLING		59	62	55	56	71	59				
	E 258 1 COUPLING DEVICES CIRCUITRY - IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY COMPONENTS ASSOCIATED WITH RC COUPLING		58	60	55	58	65	60				
	E 259 1 COUPLING DEVICES OR CIRCUITRY - IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY AND COMPONENTS ASSOCIATED WITH IMPEDANCE COUPLING		57	61	52	58	68	60				
	E 260 1 COUPLING DEVICE OR CIRCUITRY - IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH TRANSFORMER COUPLING		58	61	54	58	68	60				
	E 261 1 COUPLING DEVICES OR CIRCUITRY - TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM THE RC COUPLING		53	58	46	42	6P	56				
	E 262 1 COUPLING DEVICES OR CIRCUITRY - TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM IMPEDANCE COUPLING		51	59	44	42	71	56				
	E 263 1 COUPLING DEVICES OR CIRCUITRY - TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM TRANSFORMER COUPLING		54	59	46	42	69	57				
	E 264 1 COUPLING DEVICES OR CIRCUITRY - WORK WITH DIRECT COUPLED CIRCUITS		57	60	53	50	68	58				
	E 265 1 COUPLING DEVICES OR CIRCUITRY - WORK WITH CAPACITIVE-RESISTANCE COUPLED CIRCUITS		56	59	53	50	63	58				
	E 266 1 COUPLING DEVICES OR CIRCUITRY - WORK WITH CAPACITIVE-INDUCTIVE COUPLED CIRCUITS		54	56	51	50	62	55				
	E 267 1 COUPLING DEVICES OR CIRCUITRY - WORK WITH TRANSFORMER COUPLED CIRCUITS		58	61	54	50	60	59				
	E 268 2 SOLDERING - PERFORM, INSPECT OR EVALUATE CONNECTIONS		71	75	66	67	74	75	SOLDERING			
	E 269 2 SOLDERING - SOLDER CONNECTIONS		68	77	55	53	67	75				
	E 270 2 SOLDERING - DESOLDER CONNECTIONS		67	76	55	53	67	75				
	E 271 2 SOLDERING - PERFORM HIGH RELIABILITY		52	61	40	25	65	6C				
	E 272 2 SOLDERING - INSPECT CONNECTIONS		74	79	68	92	80	79				
	E 273 2 SOLDERING - CLEAN OR TIN CONNECTIONS		67	77	54	33	80	76				

PCT MRS RESP \*YES\* - 303X2 DAFSC/CONUS/QS GPPS  
 TASK GROUP SUMMARY  
 PERCENT MEMBERS PERFORMING

OCCUPATIONAL ANALYSIS PROGRAM  
 USAFOMC (IATC) RANDOLPH AFB TX

		DY-TSK	ALL	SKL	SKL	TS	TS	5	5
			SPC	SPC	SPC	SPC	SPC	0's	0's
			Q14	C16	C17	Q22	Q25	026	026
E 274 2	SOLDERING - MAKE HARDWIRE CONNECTIONS		65	73	54	33	78	71	
E 275 2	SOLDERING - MAKE PRINTED CIRCUIT BOARD CONNECTIONS		59	66	50	25	82	62	
E 276 2	SOLDERING - SOLDER PASSIVE COMPONENTS SUCH AS RESISTORS OR CAPACITORS		67	77	55	33	82	76	
E 277 2	SOLDERING - SOLDER ACTIVE COMPONENTS SUCH AS SOLID-STATE DIODES OR TRANSISTORS		63	71	53	25	83	68	
E 278 2	SOLDERING - PERFORM WIRE WRAPPING IN LIEU OF		26	33	17	8	45	30	
E 279 2	SOLDERING - PERFORM CRIMPING IN LIEU OF		57	64	47	33	71	63	
E 280 2	SOLDERING - PERFORM WIRE CONNECTIONS USING A 714 PUNCH-ON TOOL IN LIEU OF		12	13	10	0	25	9	
E 281 3	RELAYS - WORK WITH		71	77	64	75	78	77	RELAYS
E 282 3	RELAYS - ADJUST		46	49	41	25	52	49	
E 283 3	RELAYS - CLEAN		58	67	45	33	72	66	
E 284 3	RELAYS - INSPECT		66	73	56	75	78	71	
E 285 3	RELAYS - TROUBLESHOOT		63	71	52	42	78	68	
E 286 3	RELAYS - MONITOR BIAS OUTPUT		24	32	14	17	37	30	
E 287 3	RELAYS - REMOVE OR REPLACE		64	73	51	25	78	72	
E 288 3	RELAYS - PERFORM TASKS ON CONTACTS		51	58	41	33	71	56	
E 289 3	RELAYS - PERFORM TASKS ON CORES		16	18	14	8	26	16	
E 290 3	RELAYS - PERFORM TASKS ON COILS		23	24	23	17	32	22	
E 291 3	RELAYS - PERFORM TASKS ARMATURES		29	32	25	25	35	32	
E 292 3	RELAYS - PERFORM ON SPRINGS		33	38	27	25	42	38	
E 293 3	RELAYS - USE OR REFER TO SCHEMATIC SYMBOLS FOR SINGLE POLE, SINGLE THROW (SPST), NORMALLY OPEN (NO)		61	64	56	75	74	62	
E 294 3	RELAYS - USE OR REFER TO SCHEMATIC SYMBOLS FOR SINGLE POLE, SINGLE THROW (SPST), NORMALLY CLOSED (NC)		61	64	56	75	75	61	
E 295 3	RELAYS - USE OR REFER TO SCHEMATIC SYMBOLS FOR SINGLE POLE, DOUBLE THROW (SPDT)		59	61	55	75	68	60	
E 296 3	RELAYS - USE OR REFER TO SCHEMATIC SYMBOLS FOR DOUBLE POLE, DOUBLE THROW (DPDT)		58	61	55	75	66	60	
E 297 3	RELAYS - USE OR REFER TO SCHEMATIC SYMBOLS FOR OTHER RELAY SYMBOLS		58	59	57	75	58	60	
E 298 3	RELAYS - CHECK ELECTRICAL CONTINUITY OF COILS BY MEASURING RESISTANCE		62	68	55	50	72	67	
F 299 1	MICROPHONES - PERFORM TASKS DEALING WITH MICROPHONES OR OTHER SENSING DEVICES SUCH AS TRANSDUCERS		31	9	14	42	3	11	MICROPHONES AND SENSING DEVICE
F 300 1	MICROPHONES - INSPECT		6	6	6	33	2	7	
F 301 1	MICROPHONES - CLEAN		5	5	4	8	2	6	
F 302 1	MICROPHONES - OPERATE		8	7	9	8	3	8	
F 303 1	MICROPHONES - TROUBLESHOOT AS FAR AS CHECKING WIRE CONNECTIONS BUT NOT DOWN TO PARTS		5	5	5	17	2	6	
F 304 1	MICROPHONES - TROUBLESHOOT DOWN TO PARTS		2	2	2	8	2	2	
F 305 1	MICROPHONES - REMOVE OR REPLACE		5	5	4	8	2	6	
F 306 1	MICROPHONES - REMOVE OR REPLACE PARTS		3	2	3	8	2	2	
F 307 1	MICROPHONES - PERFORM TASKS ON CARBON		4	4	4	8	2	5	
F 308 1	MICROPHONES - PERFORM TASKS ON CAPACITOR		1	1	1	0	2	1	
F 309 1	MICROPHONES - PERFORM TASKS ON CRYSTAL		1	1	1	0	2	1	

PCT MBR'S RESP \*YES\* - 303x2 DAFSC/CNCUS/QS CARDS  
 TASK GROUP SUMMARY  
 PERCENT MEMBERS PERFORMING

OCCUPATIONAL ANALYSIS PROGRAM  
 USAFOMC (ATC) RANDOLPH AFB TX

Dy-Tsk	All	SKL					US				
		SPC	SPC	SPC	SPC	O's	SPC	SPC	SPC	SPC	SPC
F 310 1 MICROPHONE - PERFORM TASKS ON DYNAMIC	4	3	4	17	3	3					
F 311 1 MICROPHONE - PERFORM TASKS ON VELOCITY RIBBON	1	1	0	0	2	1					
F 312 1 MICROPHONE - PERFORM TASKS ON VELOCITY RIBBON	1	1	0	0	2	1					
F 313 2 SPEAKERS - PERFORM TASKS DEALING WITH	5	4	7	17	3	4					
F 314 2 SPEAKERS - INSPECT	6	8	9	25	5	9	SPEAKERS				
F 315 2 SPEAKERS - CLEAN	6	5	8	25	5	5	SPEAKERS				
F 316 2 SPEAKERS - OPERATE	5	4	5	0	5	4					
F 317 2 SPEAKERS - TROUBLESHOOT AS FAR AS CHECKING WIRE CONNECTIONS BUT NOT DOWN TO PARTS	7	6	7	8	6	6					
F 318 2 SPEAKERS - TROUBLESHOOT DOWN TO PARTS	6	6	6	0	5	6					
F 319 2 SPEAKERS - REMOVE OR REPLACE COMPLETE	6	6	6	0	5	6					
F 320 2 SPEAKERS - REMOVE OR REPLACE PARTS	2	2	1	0	3	2					
F 321 2 SPEAKERS - PERFORM TASKS ON CONES	1	1	1	0	2	1					
F 322 2 SPEAKERS - PERFORM TASKS ON SPIDERS	1	1	0	0	2	1					
F 323 2 SPEAKERS - PERFORM TASKS ON FIELD COILS	1	1	0	0	2	1					
F 324 2 SPEAKERS - PERFORM TASKS ON VOICE COILS	1	1	0	0	2	1					
F 325 2 SPEAKERS - PERFORM TASKS ON PERMANENT MAGNETS	1	1	0	0	2	1					
F 326 2 SPEAKERS - PERFORM TASKS ON ELECTROMAGNETS	1	1	0	0	2	1					
F 327 2 SPEAKERS - PERFORM TASKS ON SOFT IRON CORES	1	1	0	0	2	1					
F 328 3 OSCILLOSCOPES - USE	78	82	72	58	83	82	OSCILLOSCOPES				
F 329 3 OSCILLOSCOPES - USE TO PERFORM OPERATIONAL CHECKS	76	81	69	58	82	81					
F 330 3 OSCILLOSCOPES - USE TO PERFORM ALIGNMENTS OR ADJUSTMENTS	68	74	60	42	77	73					
F 331 3 OSCILLOSCOPES - USE TO TROUBLESHOOT ELECTRONIC CIRCUITS	67	71	58	42	77	73					
F 332 3 OSCILLOSCOPES - USE TO MEASURE FREQUENCY	71	75	66	50	80	74					
F 333 3 OSCILLOSCOPES - USE TO MEASURE TIME	77	82	71	67	82	82					
F 334 3 OSCILLOSCOPES - USE TO OBSERVE LISSAJOUS PATTERNS	28	30	26	42	37	27					
F 335 3 OSCILLOSCOPES - USE TO OBSERVE SIGNALS WHILE UTILIZING ATTENUATOR PROBES	74	78	68	67	82	77					
F 336 3 OSCILLOSCOPES - USE TO MAKE FREQUENCY OR TIME MEASUREMENTS USING DELAY TIME MULTIPLIERS	72	76	67	58	80	75					
F 337 3 OSCILLOSCOPES - USE TO MEASURE AC VOLTAGE	74	79	68	67	80	74					
F 338 3 OSCILLOSCOPES - USE TO MEASURE OR OBSERVE SIGNALS AFTER FIRST ADJUSTING THE GAIN AND DC BAL CONTROLS	70	72	67	58	75	71					
F 339 3 OSCILLOSCOPES - USE TO MEASURE DC VOLTAGE	74	79	67	67	82	78					
F 340 3 OSCILLOSCOPES - USE TO OBSERVE DATA PATTERNS	69	63	57	67	68	64					
F 341 3 OSCILLOSCOPES - USE TO MEASURE RIPPLE VOLTAGE	72	76	66	67	80	76					
F 342 3 OSCILLOSCOPES - USE TO MEASURE PHASE JITTER	56	60	51	58	66	56					
F 343 3 OSCILLOSCOPES - USE TO DISPLAY SWEEP GENERATOR PATTERNS	64	68	59	58	66	64					
F 344 3 OSCILLOSCOPES - USE TO OBSERVE PHASE RELATIONSHIPS	66	71	60	67	74	69					
F 345 3 OSCILLOSCOPES - USE TO OBSERVE SAMPLING DISPLAYS	60	64	55	58	65	64					
F 346 1 SEMICONDUCTOR DIODES - WORK WITH	71	66	67	82	72	72	SEMICONDUCTOR DIODES				
F 347 1 SEMICONDUCTOR DIODES - INSPECT	67	72	60	67	71	71					
F 348 1 SEMICONDUCTOR DIODES - CHECK	64	73	53	92	81	71					
F 349 1 SEMICONDUCTOR DIODES - USE ENERGY LEVEL DIAGRAMS	7	6	8	9	5	5					
F 350 1 SEMICONDUCTOR DIODE - USE PN JUNCTION CHARACTERISTIC CURVES, TOGETHER WITH VALUES OF FORWARD AND REVERSE BIAS VOLTAGE, TO COMPUTE FORWARD OR REVERSE BIAS RESISTANCE	14	15	12	0	2	12					

PCT MBR'S RESP 'YES' - 303x2 CAFIC/CJAUSS/OS GRPS  
TASK GROUP SUMMARY

OCCUPATIONAL ANALYSIS PROGRAM  
USAF CMC (ATC) RANDOLPH AFB TX

TASK GROUP SUMMARY PERCENT MEMBERS PERFORMING	5									
	5	5	5	5	5	5	5	5	5	5
	All.	SKL.	SKL.	U.S.	U.S.	SPC	SPC	SPC	SPC	SPC
G 351 1 SEMICONDUCTOR DIODES - COMPUTE FORWARD OR REVERSE BIAS	22	24	18	17	32	22				
G 352 1 SEMICONDUCTION DIODES - USE OR REFER TO THE GENERAL RULE THAT TEMPERATURE CAN AFFECT OPERATION OF	54	53	54	67	60	52				
G 353 1 SEMICONDUCTOR DIODES - IDENTIFY AS OPPOSED TO OTHER ELECTRONIC COMPONENTS, SUCH AS RESISTORS, BASED ON THEIR PHYSICAL APPEARANCE	64	68	60	67	74	67				
G 354 1 SEMICONDUCTOR DIODES - REFER TO OR DETERMINE THE GENERAL EFFECTS OF DOPING ON CURRENT FLOW	15	14	16	8	18	12				
G 355 1 SEMICONDUCTOR DIODES - NEED AN UNDERSTANDING OF MEASUREMENTS OF FORWARD BIAS RESISTANCE TO PERFORM JOB	54	55	52	58	62	54				
G 356 1 SEMICONDUCTOR DIODE - NEED AN UNDERSTANDING OF DIODE COLOR CODING TO PERFORM JOB	29	25	33	58	57	22				
G 357 1 SEMICONDUCTOR DIODES - NEED AN UNDERSTANDING OF DIODE NUMBERING SYSTEM TO PERFORM JOB	55	58	50	58	71	55				
G 358 1 SEMICONDUCTOR DIODE - NEED AN UNDERSTANDING OF MEASUREMENTS OF REVERSE BIAS RESISTANCE TO PERFORM JOB	52	51	53	58	55	50				
G 359 1 SEMICONDUCTOR DIODES - NEED AN UNDERSTANDING OF VALENCE ELECTRONS (THOSE IN THE OUTERMOST SHELL) TO PERFORM JOB	11	10	12	8	17	8				
G 360 1 SEMICONDUCTOR DIODES - NEED AN UNDERSTANDING OF SYMBOLS ON THE DIODE WHICH INDICATE THE CATHODE END TO PERFORM JOB	68	72	63	67	77	71				
G 361 1 SEMICONDUCTOR DIODE - NEED AN UNDERSTANDING OF DIRECTION OF CURRENT FLOW THROUGH A DIODE TO PERFORM JOB	66	69	62	67	75	67				
G 362 1 SEMICONDUCTOR DIODE - NEED TO KNOW MATERIALS USED IN THE CONSTRUCTION OF DIODES SUCH AS GERMANIUM OR SILICON	20	19	20	17	20	20				
G 363 1 SEMICONDUCTOR DIODES - NEED TO KNOW THAT SEMICONDUCTORS HAVE NEGATIVE TEMPERATURE COEFFICIENTS OF RESISTANCE	38	37	40	50	43	35				
G 364 1 SEMICONDUCTOR DIODES - USE OR REFER TO PN JUNCTION DIODE CHARACTERISTICS CURVES	15	13	17	0	15	12				
G 365 1 SEMICONDUCTOR DIODES - DETERMINE WHETHER PN JUNCTION DIODES ARE FORWARD BIASED OR REVERSE BIASED FROM CIRCUIT DIAGRAMS	51	52	50	50	63	49				
G 366 1 SEMICONDUCTOR DIODES - NEED UNDERSTANDING OF VALENCE BAND	12	13	11	17	14	11				
G 367 1 SEMICONDUCTOR DIODES - NEED AN UNDERSTANDING OF FORBIDDEN BAND	9	9	10	8	9	9				
G 368 1 SEMICONDUCTOR DIODES - NEED AN UNDERSTANDING OF CONDUCTION BAND	12	11	14	6	12	11				
G 369 1 SEMICONDUCTOR DIODES - NEED AN UNDERSTANDING OF COVALENT BONDING	12	12	12	8	14	11				
G 370 1 SEMICONDUCTOR DIODES - NEED AN UNDERSTANDING OF ELECTRON-HOLE PAIR CREATED	15	15	8	8	18	13				
G 371 1 SEMICONDUCTOR DIODES - NEED AN UNDERSTANDING OF ELECTRON FLOW OR HOLE FLOW	28	28	29	25	29	28				
G 372 1 SEMICONDUCTOR DIODES - NEED AN UNDERSTANDING OF DONOR IMPURITY	13	12	14	8	18	11				
G 373 1 SEMICONDUCTOR DIODES - NEED AN UNDERSTANDING OF ACCEPTOR IMPURITY	12	11	14	8	15	10				

## PCT MEMBERS RESP. YES - 303X2 DAFSC/CONUS/O/S CAPS

TASK GROUP SUMMARY  
PERCENT MEMBERS PERFORMING

	OY-TASK	5					6				
		ALL	SKL	SKL	US	O's	ALL	SKL	SKL	US	O's
	SPC	SPC	SPC	SPC	SPC	SPC	SPC	SPC	SPC	SPC	SPC
		0.4	0.16	0.17	0.22	0.25	0.26	0.25	0.25	0.25	0.26
	G 374 1 SEMICONDUCTOR DIODES - NEED AN UNDERSTANDING OF P-TYPE MATERIAL	33	33	33	33	46	29	33	33	33	46
6	375 1 SEMICONDUCTOR DIODES - NEED AN UNDERSTANDING OF N-TYPE MATERIAL	33	33	32	33	46	29	33	33	33	46
6	376 2 SEMICONDUCTOR DIODES - NEED AN UNDERSTANDING OF MAJORITY CARRIERS	15	15	16	8	20	14	15	15	15	8
6	377 1 SEMICONDUCTORS DIODES - NEED AN UNDERSTANDING OF MINORITY CARRIERS	15	15	15	8	20	13	15	15	15	8
6	378 1 SEMICONDUCTOR DIODES - NEED AN UNDERSTANDING OF JUNCTION RECOMBINATION	12	12	11	8	20	11	12	12	11	8
6	379 1 SEMICONDUCTOR DIODES - NEED AN UNDERSTANDING OF DEPLETION REGION	16	15	18	8	22	13	16	15	18	8
G	380 1 SEMICONDUCTOR DIODES - NEED AN UNDERSTANDING OF POTENTIAL RELATIONSHIP BETWEEN BARRIER WIDTH AND DIFFERENCE OF POTENTIAL	16	15	18	8	18	14	16	15	18	8
G	381 1 SEMICONDUCTOR DIODES - FRONT RESISTANCE RATIO	56	54	59	67	62	52	56	54	59	67
G	382 1 SEMICONDUCTOR DIODES - USE OR REFER TO BARRIER HEIGHT	7	8	6	0	11	8	7	8	6	0
G	383 1 SEMICONDUCTOR DIODES - USE OR REFER TO DIODE SUBSTITUTION INFORMATION	48	46	51	58	58	43	48	46	51	58
G	384 1 SEMICONDUCTOR DIODES - USE OR REFER TO MAXIMUM AVERAGE FORWARD CURRENT	30	28	33	25	32	28	30	28	33	25
G	385 1 SEMICONDUCTOR DIODES - USE OR REFER TO PEAK RECURRENT FORWARD CURRENT	26	25	27	25	26	25	26	25	27	25
G	386 1 SEMICONDUCTOR DIODES - USE OR REFER TO MAXIMUM SURGE CURRENT	29	29	31	33	35	28	29	29	31	33
G	387 1 SEMICONDUCTOR DIODES - USE OR REFER TO PEAK REVERSE (INVERSE) VOLTAGE	38	34	44	33	43	33	38	34	44	33
G	388 2 TRANSISTORS - WORK WITH	61	62	59	58	77	58	61	62	59	58
G	389 2 TRANSISTORS - INSPECT	56	60	52	58	75	55	56	60	52	58
G	390 2 TRANSISTORS - CHECK	54	60	47	33	77	55	54	60	47	33
G	391 2 TRANSISTORS - NEED AN UNDERSTANDING OF Emitter - BASE (EBI) FORWARD AND REVERSE RESISTANCE MEASUREMENTS	55	57	53	50	75	52	55	57	53	50
G	392 2 TRANSISTORS - USE OR REFER TO COLLECTOR - BASE (CB)	55	57	53	58	74	52	55	57	53	58
G	393 2 TRANSISTORS - FORWARD AND REVERSE RESISTANCE MEASUREMENTS	55	57	52	58	74	52	55	57	52	58
G	394 2 TRANSISTORS - USE OR REFER TO Emitter - COLLECTOR (EC) RESISTANCE MEASUREMENTS	24	24	23	17	24	23	24	24	23	17
G	395 2 TRANSISTORS - USE OR REFER HOW BIASING AFFECTS THE PHYSICAL BARRIER WIDTH OF THE Emitter - BASE JUNCTION	23	24	22	17	24	23	24	24	23	17
G	396 2 TRANSISTOR - USE OR REFER TO HOW BIASING AFFECTS THE PHYSICAL BARRIER WIDTH OF THE Emitter - BASE JUNCTION	35	38	32	17	44	35	38	32	17	44
G	397 2 TRANSISTOR STRUCTURE (COLLECTOR, BASE, AND Emitter)	23	24	24	23	22	22	23	24	23	22
G	398 2 TRANSISTOR - USE OR REFER TO LEAKAGE CURRENT (ICBO)	50	60	57	56	74	56	50	60	57	56
G	399 2 TRANSISTOR - USE OR REFER TO SCHEMATIC SYMBOLS Q1, A2, A3, ETC	51	60	55	58	75	60	51	60	55	58
G	400 2 TRANSISTOR - USE OR REFER TO SUBSTITUTION INFORMATION	51	49	50	70	44	51	51	49	50	70

PCT MEMS RESP - YES - 3Q3X2 DAFSC/CONUS/QS GRPS

TASK GROUP SUMMARY  
PERCENT MEMBERS PERFORMING

OCCUPATIONAL ANALYSIS PROGRAM  
USAFCOM (ATC) RANDOLPH AFB TX

TASK	GROUP	SUMMARY	PERCENT MEMBERS PERFORMING	5					5				
				ALL.	SKL	SKL	SKL	US	U's	ALL.	SPC	SPC	SPC
6 401 2 TRANSISTOR - USE OR REFER TO THE GENERAL RULE THAT THE BASE CURRENT IS NORMALLY SIGNIFICANTLY SMALLER THAN THE Emitter CURRENT	2			29	30	27	25	40	27				
6 402 2 TRANSISTOR - USE THE INFORMATION THAT THE EFFECT OF Emitter BASE VOLTAGE ON BASE CURRENT IS THE CONTROLLING FACTOR FOR	1			30	37	42	42	57	32				
6 403 2 TRANSISTOR - USE THE GENERAL RULE THAT LEAKAGE CURRENT (ICBO) INCREASES AS TEMPERATURE INCREASES	1			23	22	23	17	25	22				
6 404 2 TRANSISTOR - USE OR REFER TO CHARACTERISTIC CURVES OF				17	16	17	8	23	15				
6 405 2 TRANSISTOR - USE OR REFER TO BETA				19	18	20	17	20	19				
6 406 2 TRANSISTOR - USE OR REFER TO ALPHA				16	17	14	17	18	18				
6 407 2 TRANSISTOR - USE OR REFER TO GAMMA				14	15	12	17	17	14				
6 408 2 TRANSISTOR - USE OR REFER TO THE VOLTAGE GAIN FOR SPECIFIC TRANSISTORS BY DIVIDING THE BASE - Emitter VOLTAGE INTO THE BASE COLLECTOR VOLTAGE ( $\Delta V = VCB/VBE$ )				14	14	15	8	18	13				
6 409 2 TRANSISTOR - USE OR REFER TO THE CURRENT GAIN FOR SPECIFIC TRANSISTORS, BY DIVIDING THE CHANGE IN BASE CURRENT INTO THE CHANGE IN COLLECTOR CURRENT ( $\Delta I_C = \Delta I_C/I_B$ )				13	13	14	6	18	12				
6 410 2 TRANSISTORS - USE OR REFER TO THE POWER GAIN FOR SPECIFIC TRANSISTORS BY MULTIPLYING THE CURRENT GAIN TIMES THE VOLTAGE GAIN ( $\Delta P = \Delta I \times \Delta V$ )				11	12	11	8	15	11				
6 411 2 TRANSISTORS - PERFORM MATCHING THROUGH THE USE OF CURVE TRACING				7	8	6	0	14	8				
6 412 3 TRANSISTOR AMPLIFIERS - WORK WITH				49	47	50	58	66	42				
6 413 3 TRANSISTOR AMPLIFIERS - INSPECT				45	44	48	58	62	39				
6 414 3 TRANSISTOR AMPLIFIERS - ALIGN OR ADJUST				41	42	40	17	62	36				
6 415 3 TRANSISTOR AMPLIFIERS - TROUBLESHOOT TO THE CIRCUIT LEVEL				43	44	42	25	63	39				
6 416 3 TRANSISTOR AMPLIFIERS - TROUBLESHOOT TO COMPONENTS				41	41	25	65	65	36				
6 417 3 TRANSISTOR AMPLIFIERS - REMOVE OR REPLACE COMPLETE AMPLIFIER				41	43	39	17	65	37				
6 418 3 TRANSISTOR AMPLIFIERS - REMOVE OR REPLACE CIRCUIT COMPONENTS				42	44	39	17	65	38				
6 419 3 TRANSISTOR AMPLIFIERS - USE OR REFER TO CHANGE IN COLLECTOR CURRENT WHICH RESULTS FROM CHANGE IN BASE CURRENT				25	22	29	17	35	19				
6 420 3 TRANSISTOR AMPLIFIERS - USE OR REFER TO THE CALCULATIONS NECESSARY TO MEASURE THE SPECIFIC CHANGE IN COLLECTOR CURRENT WHICH RESULTS FROM A SPECIFIC CHANGE IN BASE CURRENT				19	14	8	22	13					
6 421 3 TRANSISTOR AMPLIFIERS - USE OR REFER TO THE CHANGE IN COLLECTOR VOLTAGE WHICH RESULTS FROM A CHANGE IN BASE CURRENT				25	24	28	17	37	20				
6 422 3 TRANSISTOR AMPLIFIERS - USE OR REFER TO THE CHANGE IN CURRENT WHICH RESULTS FROM AN INPUT SIGNAL				26	25	28	17	43	21				
6 423 3 TRANSISTOR AMPLIFIERS - USE OR REFER TO THE CALCULATIONS NECESSARY TO MEASURE THE SPECIFIC CHANGE IN BASE CURRENT WHICH RESULTS FROM A SPECIFIC INPUT SIGNAL				15	15	16	8	25	15				

### TASK GROUP SUMMARY PERCENT MEMBERS PERFORMING

DRAFT

A.I.	SKL			US			O's
	SPC	SPC	SPC	SPC	SPC	SPC	
0 014	016	017	022	025	026		
G 424	3	TRANSISTOR AMPLIFIERS - USE THE LOAD-LINE METHOD OF ANALYSIS IN YOUR CIRCUIT ANALYSIS (REQUIRES PLOTTING A LOAD-LINE ON A TRANSISTOR CHARACTERISTIC CURVE)		7	7	6	12
G 425	3	TRANSISTOR AMPLIFIERS - USE OR REFER TO THE OPERATING POINT Q (INCUBENT POINT) FOR A TRANSISTOR		16	18	19	21
G 426	3	TRANSISTOR AMPLIFIERS - MEASURE VOLTAGE GAIN		34	32	25	48
G 427	3	TRANSISTOR AMPLIFIERS - MEASURE CURRENT GAIN		24	23	17	37
G 428	3	TRANSISTOR AMPLIFIERS - MEASURE POWER GAIN		27	28	17	37
G 429	3	TRANSISTOR AMPLIFIERS - USE OR REFER TO THE VOLTAGE GAIN FOR SPECIFIC TRANSISTORS BY DIVIDING THE CHANGE IN BASE-EMITTER VOLTAGE INTO THE CHANGE OF THE BASE-COLLECTOR VOLTAGE		14	13	8	17
G 430	3	TRANSISTOR AMPLIFIERS - IDENTIFY ON SCHEMATIC DIAGRAMS, WHILE TROUBLESHOOTING THE COMPONENTS ASSOCIATED WITH Emitter (SWAMPING) RESISTOR STABILIZATION		21	21	17	20
G 431	3	TRANSISTOR AMPLIFIERS - IDENTIFY ON SCHEMATIC DIAGRAMS, WHILE TROUBLESHOOTING THE COMPONENTS ASSOCIATED WITH SELF-BIAS STABILIZATION		20	19	22	17
G 432	3	TRANSISTOR AMPLIFIERS - IDENTIFY ON SCHEMATIC DIAGRAMS, WHILE TROUBLESHOOTING THE COMPONENTS ASSOCIATED WITH SELF-BIAS THERMISTOR STABILIZATION		18	17	20	32
G 433	3	TRANSISTOR AMPLIFIERS - IDENTIFY ON SCHEMATIC DIAGRAMS, WHILE TROUBLESHOOTING THE COMPONENTS ASSOCIATED WITH FORWARD BIAS DIODE STABILIZATION		22	22	6	35
G 434	3	TRANSISTOR AMPLIFIERS - IDENTIFY ON SCHEMATIC DIAGRAMS, WHILE TROUBLESHOOTING THE COMPONENTS ASSOCIATED WITH REVERSE BIAS DIODE STABILIZATION		22	22	8	35
G 435	3	TRANSISTOR AMPLIFIERS - IDENTIFY ON SCHEMATIC DIAGRAMS, WHILE TROUBLESHOOTING THE COMPONENTS ASSOCIATED WITH DOUBLE DIODE STABILIZATION		16	15	17	26
G 436	3	TRANSISTOR AMPLIFIERS - IDENTIFY OR TROUBLESHOOT AMPLITUDE DISTORTION		28	26	31	42
G 437	3	TRANSISTOR AMPLIFIERS - IDENTIFY FREQUENCY DISTORTION		24	23	26	34
G 438	3	TRANSISTOR AMPLIFIERS - IDENTIFY PHASE DISTORTION		21	21	22	33
G 439	3	TRANSISTOR AMPLIFIERS - NEED TO KNOW THE DEGENERATIVE EFFECTS ON THE CIRCUIT CAUSED BY CHANGING Emitter RESISTANCE		18	16	17	28
G 440	3	TRANSISTOR AMPLIFIERS - DETERMINE THE CLASS OF OPERATION IN ORDER TO TROUBLESHOOT CIRCUITS		18	19	17	28
G 441	3	TRANSISTOR AMPLIFIERS - TROUBLESHOOT OR REPAIR PARAPHASE		26	27	24	34
G 442	3	TRANSISTOR AMPLIFIERS - TROUBLESHOOT OR REPAIR PUSH-PULL		34	34	37	52
G 443	3	TRANSISTOR AMPLIFIERS - TROUBLESHOOT OR REPAIR COMPLEMENTARY SYMMETRY CIRCUITS		20	21	19	37
G 444	3	TRANSISTOR AMPLIFIERS - TROUBLESHOOT OR REPAIR COMPOUND-CONNECTED		20	21	19	34
G 445	3	TRANSISTOR AMPLIFIERS - TROUBLESHOOT OR REPAIR CASCADE-CONNECTED		31	31	17	45

**TASK GROUP SUMMARY  
PERCENT MEMBERS PERFORMING**

**OCCUPATIONAL ANALYSIS PROGRAM  
USAFCMC (ATC) RANDOLPH AFB TX**

	<u>DY-TSK</u>	PERCENT MEMBERS PERFORMING						<u>SOLID-STATE SPECIAL PURPOSE DEVICES</u>
		ALL	SKL	SKL	SPC	SPC	SPC	
G 446 3 TRANSISTOR AMPLIFIERS - TROUBLESHOOT OR REPAIR VOLTAGE MULTIPLIERS (DOUBLERS/TRIPPLERS)	34	35	33	25	52	3C	36	0's
G 447 3 TRANSISTOR AMPLIFIERS - TROUBLESHOOT OR REPAIR RF	40	42	39	25	62	36	36	
G 448 3 TRANSISTOR AMPLIFIERS - TROUBLESHOOT OR REPAIR WIDEBAND	40	41	38	25	60	36	36	
I 6 449 3 TRANSISTOR AMPLIFIERS - TROUBLESHOOT OR REPAIR AUDIO (VIDEO)	12	12	11	8	15	11	11	
I 6 450 3 TRANSISTOR AMPLIFIERS - TROUBLESHOOT OR REPAIR PUSH-PULL OR POWER	38	39	37	17	60	33	33	
G 451 3 TRANSISTOR AMPLIFIERS - TROUBLESHOOT OR REPAIR PARAPHASE	27	29	24	17	35	27	27	
G 452 3 TRANSISTOR AMPLIFIERS - TROUBLESHOOT OR REPAIR COMPLEMENTARY SYMMETRY	18	19	17	25	32	16	16	
G 453 3 TRANSISTOR AMPLIFIERS - TROUBLESHOOT OR REPAIR IF	40	42	39	25	67	36	36	
G 454 3 TRANSISTOR AMPLIFIERS - TROUBLESHOOT OR REPAIR DIFFERENTIATING (DIFF)	32	34	30	25	51	29	29	
G 455 3 TRANSISTOR AMPLIFIERS - TROUBLESHOOT OR REPAIR OPERATIONAL (OP)	32	31	32	25	52	25	25	
I 6 456 3 TRANSISTOR AMPLIFIERS - TROUBLESHOOT OR REPAIR INTEGRATING	28	29	27	25	46	24	24	
I 6 457 3 TRANSISTOR AMPLIFIERS - TROUBLESHOOT OR REPAIR SUMMING	29	29	29	17	49	23	23	
H 458 1 SOLID-STATE SPECIAL PURPOSE DEVICES - USE OR REFER TO VARACTORS/VARICAPS	37	38	35	50	49	36	36	
H 459 1 SOLID-STATE SPECIAL PURPOSE DEVICES - USE OR REFER TO TUNNEL DIODES	30	29	32	50	45	23	23	
H 460 1 SOLID-STATE SPECIAL PURPOSE DEVICES - USE OR REFER TO FIELD-EFFECT TRANSISTORS (FET)	38	38	39	50	62	31	31	
H 461 1 SOLID-STATE SPECIAL PURPOSE DEVICES - USE OR REFER TO UNJUNCTION TRANSISTORS	45	45	45	42	68	39	39	
H 462 1 SOLID-STATE SPECIAL PURPOSE DEVICES - USE OR REFER TO ZENER DIODES	68	69	67	58	78	67	67	
H 463 1 SOLID-STATE SPECIAL PURPOSE DEVICES - USE OR REFER TO INTEGRATED CIRCUITS	55	55	55	67	74	49	49	
H 464 1 SOLID-STATE SPECIAL PURPOSE DEVICES - USE OR REFER TO PIN DIODES	33	33	25	52	26	26	26	
H 465 1 SOLID-STATE SPECIAL PURPOSE DEVICES - USE OR REFER TO LEDs/LCDs	41	41	41	50	71	32	32	
H 466 1 SOLID-STATE SPECIAL PURPOSE DEVICES - USE OR REFER TO FANTAIL TRANSISTORS	-	-	-	-	-	-	-	
H 467 1 SOLID-STATE SPECIAL PURPOSE DEVICES - USE OR REFER TO TRIACs	57	54	60	58	77	48	48	
H 468 1 SOLID-STATE SPECIAL PURPOSE DEVICES - USE OR REFER TO SILICON CONTROL RECTIFIERS (SCRs)	16	14	18	25	31	1C	1C	
H 469 1 SOLID-STATE SPECIAL PURPOSE DEVICES - USE OR REFER TO PROGRAMMABLE UNJUNCTION TRANSISTOR (PUT)	13	8	14	17	15	6	6	
H 470 1 SOLID-STATE SPECIAL PURPOSE DEVICES - USE OR REFER TO SILICON CONTROLLED SWITCH (SCS)	16	15	17	25	28	11	11	
H 471 1 SOLID-STATE SPECIAL PURPOSE DEVICES - USE OR REFER TO SILICON UNIJUNCTION SWITCH (SUS)	8	7	9	8	11	6	6	



OCCUPATIONAL ANALYSIS PROGRAM  
USAFORC (ATC) RANDOLPH AFB TX

PCT MBRS RESP \*YES\* - 303X2 DAFSC/CONUS/OS GRPS

TASK GROUP SUMMARY  
PERCENT MEMBERS PERFORMING

	TASK GROUP	SUMMARY	PERCENT MEMBERS PERFORMING												
			D-Y-TSK			ALL			SKL			SPC			O&B
			5	7	9	5	7	SKL	SPC	SPC	SPC	SPC	SPC	SPC	O&B
	H 502	3 OSCILLATORS - WORK WITH													
	H 503	3 OSCILLATORS - INSPECT	62	64	59	67	65	64	64	64	64	64	64	64	64
	H 504	3 OSCILLATORS - ALIGN OR ADJUST	58	61	59	67	68	60	60	60	60	60	60	60	60
	H 505	3 OSCILLATORS - REMOVE OR REPLACE	55	60	48	25	25	25	25	25	25	25	25	25	25
	H 506	3 OSCILLATORS - REMOVE OR REPLACE COMPONENTS	53	58	47	25	25	25	25	25	25	25	25	25	25
	H 507	3 OSCILLATORS - TROUBLESHOOT TO CIRCUIT LEVEL	51	56	46	25	25	25	25	25	25	25	25	25	25
	H 508	3 OSCILLATORS - TROUBLESHOOT TO COMPONENTS	54	59	48	33	33	33	33	33	33	33	33	33	33
	H 509	3 OSCILLATORS - USE OR REFER TO FEEDBACK (DEGENERATIVE OR REGENERATIVE)	52	57	46	33	33	33	33	33	33	33	33	33	33
	H 510	3 OSCILLATORS - USE OR REFER TO FREQUENCY DETERMINING DEVICES (FDD)	53	53	53	53	53	53	53	53	53	53	53	53	53
	H 511	3 OSCILLATORS - USE OR REFER TO AMPLITUDE STABILITY	47	49	45	58	58	51	50	50	50	50	50	50	50
	H 512	3 OSCILLATORS - USE OR REFER TO FREQUENCY STABILITY	55	57	52	60	60	58	58	58	58	58	58	58	58
	H 513	3 OSCILLATORS - USE OR REFER TO PIEZOELECTRIC EFFECT (CRYSTAL OSCILLATIONS)	41	41	40	42	42	42	42	42	42	42	42	42	42
	H 514	3 OSCILLATORS - USE OR REFER TO HARMONIC DISTORTION	40	39	40	42	42	51	51	51	51	51	51	51	51
	H 515	3 OSCILLATORS - FREQUENCY DETERMINING DEVICES (FDD) - WORK WITH OSCILLATORS WHICH CONTAIN DC TANK CIRCUITS	40	37	45	58	58	40	40	40	40	40	40	40	40
	H 516	3 OSCILLATORS - FREQUENCY DETERMINING DEVICES (FDD) - WORK WITH OSCILLATORS WHICH CONTAIN RC NETWORKS	46	43	49	67	67	46	46	46	46	46	46	46	46
	H 517	3 OSCILLATORS - WORK WITH OSCILLATORS WHICH CONTAIN CRYSTALS	54	54	55	58	58	62	62	62	62	62	62	62	62
	H 518	3 OSCILLATORS - WORK WITH OSCILLATORS WHICH CONTAIN PHASE LOCK LOOPS (PLL)	22	23	22	50	50	23	23	23	23	23	23	23	23
	H 519	3 OSCILLATORS - FREQUENCY DETERMINING DEVICES (FDD) - WORK WITH OSCILLATORS BUT DON'T KNOW WHICH TYPE OF FDD IT CONTAINS	13	14	11	8	8	14	14	14	14	14	14	14	14
	H 520	3 OSCILLATORS - SINUSOIDAL - WORK WITH SERIES MARTLEY	34	33	34	92	92	38	38	38	38	38	38	38	38
	H 521	3 OSCILLATORS - SINUSOIDAL - WORK WITH SHUNT MARTLEY	33	33	32	92	92	38	38	38	38	38	38	38	38
	H 522	3 OSCILLATORS - SINUSOIDAL - WORK WITH COLPITTS	30	26	35	50	50	35	35	35	35	35	35	35	35
	H 523	3 OSCILLATORS - SINUSOIDAL - WORK WITH CLAPP	14	13	16	33	33	17	17	17	17	17	17	17	17
	H 524	3 OSCILLATORS - SINUSOIDAL - WORK WITH VOLTAGE CONTROL	31	32	30	58	58	37	37	37	37	37	37	37	37
	H 525	3 OSCILLATORS - SINUSOIDAL - WORK WITH CRYSTAL	49	48	50	67	67	52	52	52	52	52	52	52	52
	H 526	3 OSCILLATORS - SINUSOIDAL - WORK WITH VOLTAGE CONTROL	29	29	29	58	58	29	29	29	29	29	29	29	29
	H 527	3 OSCILLATORS - SINUSOIDAL - WORK WITH WIEN BRIDGE	22	21	23	33	33	29	29	29	29	29	29	29	29
	H 528	3 OSCILLATORS - SINUSOIDAL - DON'T KNOW WHICH TYPE OF OSCILLATOR	20	23	17	25	25	22	22	22	22	22	22	22	22
	H 529	3 OSCILLATORS - WORK WITH PULSE GENERATING CIRCUITS	59	63	64	67	67	69	69	69	69	69	69	69	69
	H 530	3 OSCILLATORS - WORK WITH BLOCKING OSCILLATORS	56	59	53	67	67	60	60	60	60	60	60	60	60
	H 531	3 OSCILLATORS - WORK WITH BURST GENERATORS	10	10	10	17	17	16	16	16	16	16	16	16	16
	H 532	3 OSCILLATORS - WORK WITH BLOCKED OSCILLATORS	40	41	39	48	48	39	39	39	39	39	39	39	39
	I 533	1 MULTIVIBRATORS - WORK WITH	60	61	59	67	67	65	65	65	65	65	65	65	65
	I 534	1 MULTIVIBRATORS - INSPECT	55	57	53	67	67	60	60	60	60	60	60	60	60
	I 535	1 MULTIVIBRATORS - ALIGN OR ADJUST	51	55	47	25	25	55	55	55	55	55	55	55	55
	I 536	1 MULTIVIBRATORS - CALIBRATE	45	47	42	25	25	46	46	46	46	46	46	46	46

MULTIVIBRATORS

PCT MBR. RESP \*YES\* - 303X? DAFSC/CONUS/OS GRPS

TASK GROUP SUMMARY  
PERCENT MEMBERS PERFORMINGOCCUPATIONAL ANALYSIS PROGRAM  
USAFOMC (ATC) RANDOLPH AFB TX

	DYSK	S						5					
		ALL	SKL	SKL	US	0's	SPC	SPC	SPC	SPC	SPC	SPC	SPC
	DYSK	014	C16	017	022	025	026						
(	1 537 1 MULTIVIBRATORS - TROUBLESHOOT TO CIRCUIT	52	56	47	33	57	56						
(	1 538 1 MULTIVIBRATORS - TROUBLESHOOT TO CIRCUIT COMPONENTS	50	54	45	33	54	55						
(	1 539 1 MULTIVIBRATORS - REMOVE OR REPLACE COMPLETE CIRCUITS	46	50	42	25	55	48						
(	1 540 1 MULTIVIBRATORS - REMOVE OR REPLACE CIRCUIT COMPONENTS	49	54	43	25	55	54						
(	1 541 1 MULTIVIBRATORS - WORK WITH MULTIVIBRATORS WHICH CONTAIN LC TANK CIRCUITS	41	40	41	58	40	41						
(	1 542 1 MULTIVIBRATORS - WORK WITH MULTIVIBRATORS WHICH CONTAIN RC NETWORKS (FDD)	47	44	50	58	40	46						
(	1 543 1 MULTIVIBRATORS - WORK WITH MULTIVIBRATORS WITH CRYSTAL FREQUENCY DETERMINING DEVICES (FDD)	42	42	43	58	42	43						
(	1 544 1 MULTIVIBRATORS - FREQUENCY DETERMINING DEVICES (FDD) - DON'T KNOW WHICH TYPE OF FDD WORKED WITH	15	18	12	25	29	16						
(	1 545 1 MULTIVIBRATORS - WORK WITH ASTABLE (FREE RUNNING)	52	54	50	58	54	54						
(	1 546 1 MULTIVIBRATORS - WORK WITH MONOSTABLE (ONE SHOT)	57	58	56	67	62	56						
(	1 547 1 MULTIVIBRATORS - WORK WITH BIStABLE (FLIP FLOP)	57	58	55	67	62	57						
(	1 548 2 LIMITERS - CLAMPERS - WORK WITH SERIES DIODE LIMITERS	55	60	49	58	63	59	LIMITERS AND CLAMPERS					
(	1 549 2 LIMITERS - CLAMPERS - WORK WITH SHUNT DIODE LIMITERS	49	49	49	50	55	47						
(	1 550 2 LIMITERS - CLAMPERS - WORK WITH LIMITERS WITH BIAS	53	55	50	58	62	53						
(	1 551 2 LIMITERS - CLAMPERS - WORK WITH ZENER DIODE LIMITERS	46	49	47	42	51	48						
(	1 552 2 LIMITERS - CLAMPERS - WORK WITH TRANSISTOR LIMITERS	50	51	48	52	62	48						
(	1 553 2 LIMITERS - CLAMPERS - WORK WITH TRIODE LIMITERS	38	41	35	50	62	35						
(	1 554 2 LIMITERS - CLAMPERS - WORK WITH BASIC DIODE CLAMPING CIRCUITS	33	37	28	33	34	38						
(	1 555 2 LIMITERS - CLAMPERS - WORK WITH BASIC DIODE CLAMPING CIRCUITS	50	51	49	58	57	49						
(	1 556 2 LIMITERS - CLAMPERS - WORK WITH BIAS DIODE CLAMPING CIRCUITS	43	45	40	50	49	44						
(	1 557 2 LIMITERS - CLAMPERS - WORK WITH DC RESISTORS (DCR)	18	36	42	50	46	34	ELECTRON TUBES					
(	1 558 3 ELECTRON TUBES - WORK ON EQUIPMENT WHICH CONTAINS BASIC ELECTRON TUBES	59	63	53	67	67	67						
(	1 559 3 ELECTRON TUBES - CHECK CONDITION	55	62	46	50	46	67						
(	1 560 3 ELECTRON TUBES - USE TUBE TESTERS TO CHECK	55	61	48	50	40	58						
(	1 561 3 ELECTRON TUBES - USE MULTIMETERS TO CHECK	44	47	40	33	31	52						
(	1 562 3 ELECTRON TUBES - USE SCOPES TO CHECK	50	54	49	33	43	57						
(	1 563 3 ELECTRON TUBES - USE SUBSTITUTION TO CHECK	55	61	48	50	43	67						
(	1 564 3 ELECTRON TUBES - USE OR REFER TO CUTOFF	42	36	38	50	35	49						
(	1 565 3 ELECTRON TUBES - USE OR REFER TO PEAK INVERSE VOLTAGE RATING	21	24	18	25	25	24						
(	1 566 3 ELECTRON TUBES - USE OR REFER TO PEAK CURRENT RATING	23	27	18	25	26	28						
(	1 567 3 ELECTRON TUBES - USE OR REFER TO TRANSIT TIME	19	22	16	0	22	23						
(	1 568 3 ELECTRON TUBES - USE OR REFER TO PLATE DISSIPATION	16	19	13	17	18	20						
(	1 569 3 ELECTRON TUBES - USE OR REFER TO SATURATION RATING	46	51	42	50	48	55						
(	1 570 3 ELECTRON TUBES - USE OR REFER TO DC PLATE RESISTANCE	29	31	28	25	26	32						
(	1 571 3 ELECTRON TUBES - USE OR REFER TO PLATE VOLTAGE	55	59	50	67	42	54						
(	1 572 3 ELECTRON TUBES - USE OR REFER TO PLATE CURRENT	46	50	40	56	35	55						
(	1 573 3 ELECTRON TUBES - USE OR REFER TO GRID VOLTAGE	54	58	49	67	42	63						
(	1 574 3 ELECTRON TUBES - USE OR REFER TO GRID CURRENT	44	48	38	58	34	53						

PCT MRS RESP 'YES' - 303x2 DAFSC/CONUS/QS GRPS

OCCUPATIONAL ANALYSIS PROGRAM  
USAFCOM (ATC) RANDOLPH AFB TXTASK GROUP SUMMARY  
PERCENT MEMBERS PERFORMING

## DY-TSM

			5' 7' 9' 5' 5' 0's					
			ALL	SKL	SKL	US	SPC	SPC
			014	016	017	022	025	026
I 575 3	ELECTRON TUBES - USE OR REFER TO CATHODE VOLTAGE		55	52	50	67	43	64
I 576 3	ELECTRON TUBES - USE OR REFER TO CATHODE CURRENT		46	50	41	58	34	55
I 577 3	ELECTRON TUBES - USE OR REFER TO FILAMENT VOLTAGE		57	61	51	67	46	67
I 578 3	ELECTRON TUBES - USE OR REFER TO THE TRIODE AMPLIFICATION FACTOR		22	24	19	8	23	24
I 579 3	ELECTRON TUBES - USE OR REFER TO MULTIGRID (TETRODE, PENTODE, ETC.) AMPLIFICATION FACTORS		22	26	17	0	26	26
I 580 3	ELECTRON TUBES - USE OR REFER TO TRANSCONDUCTANCE		12	14	9	0	14	14
I 581 3	ELECTRON TUBES - USE OR REFER TO THE PARAMETER CALLED AC PLATE RESISTANCE		12	14	9	0	18	13
I 582 3	ELECTRON TUBES - USE OR REFER TO INTERELECTRODE CAPACITANCE		20	19	21	0	22	19
I 583 3	ELECTRON TUBES - USE OR REFER TO CHARACTERISTIC CURVES		15	19	10	0	23	18
I 584 3	ELECTRON TUBES - USE OR REFER TO PLATE VOLTAGE FOR A SPECIFIED BIAS		33	39	25	6	24	43
I 585 3	ELECTRON TUBES - USE OR REFER TO PLATE CURRENT FOR A SPECIFIED BIAS		29	34	22	8	25	36
I 586 3	ELECTRON TUBES - USE OR REFER TO BIAS REQUIRED FOR CUT-OFF SATURATION		38	43	32	42	31	46
I 587 3	ELECTRON TUBES - USE OR REFER TO BIAS REQUIRED FOR		37	43	29	42	32	46
I 588 3	ELECTRON TUBES - USE OR REFER TO GAIN		45	49	40	50	35	55
I 589 3	ELECTRON TUBES - USE OR REFER TO EFFICIENCY		27	32	20	8	26	34
I 590 3	ELECTRON TUBES - USE MULTIMETERS TO DETERMINE TUBE AMPLIFIER GAIN		35	39	30	42	23	44
I 591 3	ELECTRON TUBES - USE OSCILLOSCOPES TO DETERMINE TUBE AMPLIFIER GAIN		49	53	43	42	37	57
I 592 3	ELECTRON TUBES - USE CHARACTERISTICS CURVES TO DETERMINE TUBE AMPLIFIER GAIN		17	21	12	8	20	21
I 593 3	ELECTRON TUBES - USE OR REFER TO TUBE SOCKET NOTATION		53	56	49	58	40	61
I 594 3	ELECTRON TUBES - USE OR REFER TO PIN NUMBERING SYSTEMS		56	60	51	58	38	67
I 595 3	ELECTRON TUBES - USE OR REFER TO TUBE SUBSTITUTION MATERIAL SUCH AS MANUALS OR CHARTS		48	51	44	58	37	55
I 596 3	ELECTRON TUBES - USE OR REFER TO ELECTRON TUBE DIODES		48	50	46	67	34	56
J 597 1	ELECTRON TUBE AMPLIFIERS OR CIRCUITS - WORK WITH CLASS OF OPERATION FOR AMPLIFIERS IN ORDER TO TROUBLESHOOT CIRCUITS		57	63	50	42	45	69
J 598 1	ELECTRON TUBE AMPLIFIERS OR CIRCUITS - DETERMINE THE CLASS OF OPERATION FOR AMPLIFIERS IN ORDER TO TROUBLESHOOT CIRCUITS		19	22	15	8	11	27
J 599 1	ELECTRON TUBE AMPLIFIERS OR CIRCUITS - TROUBLESHOOT OR REPAIR PARASitic AMPLIFIERS		32	33	37	17	26	37
J 600 1	ELECTRON TUBE AMPLIFIERS OR CIRCUITS - TROUBLESHOOT OR REPAIR PUSH-PULL AMPLIFIERS		41	41	40	25	20	45
J 601 1	ELECTRON TUBE AMPLIFIERS OR CIRCUITS - TROUBLESHOOT OR REPAIR COMPOUND-CONNECTED AMPLIFIERS		27	28	26	33	20	32
J 602 1	ELECTRON TUBE AMPLIFIERS OR CIRCUITS - TROUBLESHOOT OR REPAIR CASCADE-CONNECTED AMPLIFIERS		36	37	40	25	28	41
J 603 1	ELECTRON TUBE AMPLIFIERS OR CIRCUITS - DON'T KNOW WHICH TYPE OF AMPLIFIER WORKED ON		17	23	0	6	27	24





TASK GROUP SUMMARY  
PERCENT MEMBERS PERFORMING

CY- <u>TASK</u>	ALL SPC	SKL SPC	US SPC	0's SPC	ALL SPC		SKL SPC		US SPC		0's SPC
					014	016	017	022	025	026	
K 656 2 FM TRANSMIT OR RECEIVE SYSTEMS - PERFORM TASKS ON DRIVERS (INTERMEDIATE AMPLIFIERS)	20	25	14	8	26	25					
K 657 2 FM TRANSMIT OR RECEIVE SYSTEMS - PERFORM TASKS ON POWER AMPLIFIERS	20	25	13	8	26	25					
K 658 2 FM TRANSMIT OR RECEIVE SYSTEMS - PERFORM TASKS ON RF AMPLIFIERS	20	25	14	8	26	25					
K 659 2 FM TRANSMIT OR RECEIVE SYSTEMS - PERFORM TASKS ON FREQUENCY CONVERTERS	17	21	12	8	23	21					
K 660 2 FM TRANSMIT OR RECEIVE SYSTEMS - PERFORM TASKS ON IF AMPLIFIERS	20	25	13	8	28	25					
K 661 2 FM TRANSMIT OR RECEIVE SYSTEMS - PERFORM TASKS ON LIMITERS	19	25	12	8	20	24					
K 662 2 FM TRANSMIT OR RECEIVER SYSTEMS - PERFORM TASKS ON FREQUENCY DISCRIMINATORS	17	21	11	6	23	22					
K 663 2 FM TRANSMIT OR RECEIVE SYSTEMS - TRACE SIGNALS OR CURRENT PATHS THROUGH SCHEMATIC DIAGRAMS OF FM TRANSMITTERS	19	24	13	25	26	24					
K 664 2 FM TRANSMIT OR RECEIVE SYSTEMS - TRACE SIGNALS OR CURRENT PATHS THROUGH SCHEMATIC DIAGRAMS OF FM RECEIVERS	20	25	14	25	26	25					
K 665 2 FM TRANSMIT OR RECEIVE SYSTEMS - TRACE SIGNALS OR CURRENT PATHS THROUGH SCHEMATIC DIAGRAMS OF FM TRANSMITTERS	12	14	10	25	18	14					
K 666 2 FM TRANSMIT OR RECEIVE SYSTEMS - PLOT RECEIVE SIGNAL LEVEL CURVES (IRS)	6	6	5	8	8	6					
K 667 3 NUMBERING SYSTEMS - CONVERT DECIMAL (BASE 10) NUMBERS TO OCTAL (BASE 8) NUMBERS	19	17	22	8	26	14					
K 668 3 NUMBERING SYSTEMS - CONVERT DECIMAL NUMBERS TO BINARY (BASE 2) NUMBERS	28	25	33	25	42	20					
K 669 3 NUMBERING SYSTEMS - CONVERT DECIMAL NUMBERS HEXADECIMAL (BASE 16) NUMBERS	8	7	9	8	12	5					
K 670 3 NUMBERING SYSTEMS - CONVERT OCTAL NUMBERS TO DECIMAL	19	17	22	8	26	13					
K 671 3 NUMBERING SYSTEMS - CONVERT OCTAL NUMBERS TO BINARY	19	17	22	8	26	13					
K 672 3 NUMBERING SYSTEMS - CONVERT OCTAL NUMBERS TO HEXADECIMAL	8	7	8	8	14	5					
K 673 3 NUMBERING SYSTEMS - CONVERT BINARY NUMBERS TO DECIMAL	20	25	31	25	42	20					
K 674 3 NUMBERING SYSTEMS - CONVERT BINARY NUMBERS TO OCTAL	18	16	21	6	26	13					
K 675 3 NUMBERING SYSTEMS - CONVERT BINARY NUMBERS TO HEXADECIMAL NUMBERS	7	7	8	6	11	5					
K 676 3 NUMBERING SYSTEMS - CONVERT HEXADECIMAL NUMBERS TO DECIMAL NUMBERS	8	6	10	8	9	5					
K 677 3 NUMBERING SYSTEMS - CONVERT HEXADECIMAL NUMBERS TO OCTAL NUMBERS	3	7	9	3	14	5					
K 678 3 NUMBERING SYSTEMS - CONVERT HEXADECIMAL NUMBERS TO BINARY NUMBERS	7	6	8	11	5	19					
K 679 3 NUMBERING SYSTEMS - ADD BINARY NUMBERS	25	32	25	25	45	19					

PCT HRS RESP 'YES' - 30342 DAFSC/COMUS/OS GRPS

TASK GROUP SUMMARY  
PERCENT MEMBERS PERFORMING

OCCUPATIONAL ANALYSIS PROGRAM  
USAFO/MC (ATC) RANDOLPH AFB TX

			ALL	SKL	9	5	5
			SPC	SPC	SPC	SPC	SPC
K	680	3 NUMBERING SYSTEMS - SUBTRACT BINARY NUMBERS USING THE END-AROUND-CARRY METHOD	23	22	25	17	43
K	681	3 NUMBERING SYSTEMS - SUBTRACT BINARY NUMBERS USING THE DIRECT SUBTRACTION METHOD	24	23	26	17	42
K	682	3 NUMBERING SYSTEMS - ADD OCTAL NUMBERS	17	16	18	8	28
K	683	3 NUMBERING SYSTEMS - ADD HEXADECMIAL NUMBERS	7	7	7	8	12
K	684	3 NUMBERING SYSTEMS - SUBTRACT HEXADECMIAL NUMBERS	8	7	8	8	14
K	685	3 NUMBERING SYSTEMS - DIVIDE BINARY NUMBERS	18	17	19	17	34
K	686	3 NUMBERING SYSTEMS - MULTIPLY BINARY NUMBERS	19	18	21	17	35
K	687	3 NUMBERING SYSTEMS - USE OR REFER TO BINARY CODED IDENTICAL (BCD)	26	23	30	25	45
K	688	3 NUMBERING SYSTEMS - USE OR REFER TO GRAY CODE	20	19	20	25	37
K	689	3 NUMBERING SYSTEMS - USE OR REFER TO ICAO CODE	3	3	4	17	8
K	690	3 NUMBERING SYSTEMS - USE OR REFER TO EXCESS-3 CODE	8	6	10	17	11
L	691	1 LOGIC FUNCTIONS - PERFORM TASKS RELATING TO SYMBOLS OR GATES	30	30	30	33	58
L	692	1 LOGIC FUNCTIONS - CONSTRUCT TRUTH TABLES FOR AND LOGIC	20	19	21	25	38
L	693	1 LOGIC FUNCTIONS - CONSTRUCT TRUTH TABLES FOR (OR) LOGIC SYMBOLS OR GATES	20	19	21	25	38
L	694	1 LOGIC FUNCTIONS - CONSTRUCT TRUTH TABLES FOR (AND) OR (OR) LOGIC SYMBOLS WITH STATE INDICATORS	20	18	21	25	37
L	695	1 LOGIC FUNCTIONS - CONSTRUCT TRUTH TABLES FOR EXCLUSIVE (OR) LOGIC SYMBOLS OR GATES	20	18	21	25	38
L	696	1 LOGIC FUNCTIONS - USE OR REFER TO TRUTH TABLES FOR (AND) LOGIC SYMBOLS OR GATES	25	24	26	33	49
L	697	1 LOGIC FUNCTIONS - USE OR REFER TO TRUTH TABLES FOR LOGIC SYMBOLS OR GATES	25	25	26	33	51
L	698	1 LOGIC FUNCTIONS - USE OR REFER TO TRUTH TABLES FOR (AND) OR (OR) LOGIC SYMBOLS WITH STATE INDICATORS	24	24	25	33	48
L	699	1 LOGIC FUNCTIONS - USE OR REFER TO TRUTH TABLES FOR (EXCLUSIVE OR) LOGIC SYMBOLS	25	24	26	33	49
L	700	1 LOGIC FUNCTIONS - USE OR REFER TO LOGIC SYMBOLS FOR (AND) GATES	29	28	30	33	55
L	701	1 LOGIC FUNCTIONS - USE OR REFER TO LOGIC SYMBOLS FOR (OR) GATES	29	28	30	33	55
L	702	1 LOGIC FUNCTIONS - USE OR REFER TO LOGIC SYMBOLS FOR (NAND) OR (INOR) GATES	29	28	30	33	57
L	703	1 LOGIC FUNCTIONS - USE OR REFER TO LOGIC SYMBOLS FOR (EXCLUSIVE OR) GATES	28	28	30	33	57
L	704	1 LOGIC FUNCTIONS - USE OR REFER TO LOGIC SYMBOLS FOR INHIBITED (AND) GATES	27	25	29	33	49
L	705	1 LOGIC FUNCTIONS - USE OR REFER TO LOGIC SYMBOLS FOR "B" BARS	6	7	4	8	18
L	706	1 LOGIC FUNCTIONS - USE OR REFER TO LOGIC SYMBOLS FOR "H" BARS	6	7	4	8	18
L	707	1 LOGIC FUNCTIONS - USE OR REFER TO LOGIC SYMBOLS FOR COMBINERS	11	10	12	6	18

PCT MARS RESP : YES :- 303X2 DIFSC/CONVIS/OS 6888

TASK GROUP SUMMARY  
PERCENT MEMBERS PERFORMING

	ALI S SKL SPC SPL 014 016 017	SKL SPC SPC SPC SPC 022	SPC SPC SPC SPC SPC 025	SPC SPC SPC SPC SPC 026
DY-TSK				0's
L 704 1 LOGIC FUNCTIONS - USE OR REFER TO FLIP-FLOP MULTI- VIBRATOR SYMBOLS	-	-	-	-
L 709 1 LOGIC FUNCTIONS - USE OR REFER TO ONE-SHOT MULTI- VIBRATOR SYMBOLS	-	-	-	-
L 710 1 LOGIC FUNCTIONS - USE OR REFER TO FLIP-FLOP CIRCUIT OR SCHEMATIC DIAGRAMS	-	-	-	-
L 711 1 LOGIC FUNCTIONS - USE OR REFER TO ONE-SHOT CIRCUIT OR SCHEMATIC DIAGRAMS	-	-	-	-
L 712 1 LOGIC FUNCTIONS - USE OR REFER TO FLIP-FLOP TRUTH TABLES	-	-	-	-
L 723 1 LOGIC FUNCTIONS - USE OR REFER TO COMPLEMENTED FLIP-FLOP LOGIC SYMBOLS	-	-	-	-
L 716 1 LOGIC FUNCTIONS - USE OR REFER TO COMPLEMENTING FLIP-FLOP LOGIC SYMBOLS	-	-	-	-
L 717 1 LOGIC FUNCTIONS - CONSTRUCT TRUTH TABLES FOR "B" BARS L 718 1 LOGIC FUNCTIONS - CONSTRUCT TRUTH TABLES FOR "M" BARS	-	-	-	-
L 719 1 LOGIC FUNCTIONS - CONSTRUCT TRUTH TABLES FOR COMBINERS CIRCUITS	-	-	-	-
L 720 1 LOGIC FUNCTIONS - TRACE DATA FLOW THROUGH COMPLEMENTED FLIP-FLOP SCHEMATIC DIAGRAMS	-	-	-	-
L 721 1 LOGIC FUNCTIONS - TRACE DATA FLOW THROUGH COMPLEMENT- ING FLIP-FLOP SCHEMATIC DIAGRAMS	-	-	-	-
L 722 1 LOGIC FUNCTIONS - TRACE DATA FLOW THROUGH NONCOMPLEMENT	-	-	-	-
L 723 1 LOGIC FUNCTIONS - CONSTRUCT TRUTH TABLES FOR J-K FLIP- FLOP LOGIC SYMBOLS	-	-	-	-
L 724 2 BOOLEAN EQUATIONS - PERFORM TASKS RELATING TO BOOLEAN EQUATIONS, LOGIC DIAGRAMS, OR LOGIC CIRCUITS	16	16	16	16
L 725 2 BOOLEAN EQUATIONS - DRAW LOGIC SYMBOLS FOR DIRECT COUPLED TRANSISTOR LOGIC (DTCL) CIRCUITS	8	8	8	8
L 726 1 BOOLEAN EQUATIONS - CONSTRUCT TRUTH TABLES FOR CURRENT MODE LOGIC (CML) CIRCUITS	5	4	6	8
L 727 2 BOOLEAN EQUATIONS - DRAW LOGIC DIAGRAMS FROM GIVEN BOOLEAN EQUATIONS	8	6	9	8
L 728 2 BOOLEAN EQUATIONS - MEASURE INPUTS OR OUTPUTS OF LOGIC GATES	15	13	17	8
L 729 2 BOOLEAN EQUATIONS - DEVELOP OR ANALYZE BOOLEAN EQUATIONS IN THE PROCESS OF TROUBLESHOOTING DIGITAL CIRCUITS	7	7	8	8
L 730 2 BOOLEAN EQUATIONS - USE OR REFER TO TRUTH TABLES FOR BOOLEAN ALGEBRA	8	7	11	8
L 731 2 BOOLEAN EQUATIONS - USE OR REFER TO LOGIC SYMBOLS FOR DIRE COUPLED TRANSISTOR LOGIC (DTCL) CIRCUIT GATES	12	10	16	17
L 732 2 BOOLEAN EQUATIONS - USE OR REFER TO TRUTH TABLES FOR CURRENT MODE LOGIC (CML) CIRCUITS	5	4	6	5
L 733 2 BOOLEAN EQUATIONS - USE OR PREFER TO LOGIC DIAGRAMS CONSISTING OF MORE THAN ONE GATE	15	13	18	17

PCT MBRs RESP YES - 303x2 DAFSC/CONUS/OS GRPS

TASK GROUP SUMMARY  
PERCENT MEMBERS PERFORMING

OCCUPATIONAL ANALYSIS PROGRAM  
USAFCOM (ATC) RANDOLPH AFB TX

DY-TSK

	L 734 2 BOOLEAN EQUATIONS - COMPUTE SUM AND CARRY EXPRESSIONS FOR SERIAL HALF OR FULL ADDER LOGIC DIAGRAMS	A.I.L. 014	SKL 016	5 SPC	7 SPC	9 SPC	5 SPC	5 US	5 0's
L 735 2 BOOLEAN EQUATIONS - TRACE DATA FLOW THROUGH PARALLEL FULL ADDER LOGIC DIAGRAMS				12	10	14	8	28	5
L 736 3 COUNTERS - WORK WITH DIGITAL COUNTERS				29	29	17	54	21	COUNTERS
L 737 3 COUNTERS - USE OR REFER TO UP-COUNTERS				28	28	17	57	19	
L 738 3 COUNTERS - USE OR REFER TO DOWN-COUNTERS				27	27	17	57	17	
L 739 3 COUNTERS - USE OR REFER TO SERIAL COUNTERS				24	24	17	51	15	
L 740 3 COUNTERS - USE OR REFER TO PARALLEL COUNTERS				23	22	17	46	15	
L 741 3 COUNTERS - USE OR REFER TO RING COUNTERS				12	12	13	25	8	
L 742 3 COUNTERS - USE OR REFER TO DECADE (MOD 10) COUNTERS				22	22	17	46	13	
L 743 3 COUNTERS - USE OR REFER TO COUNT DETECT CIRCUITS				18	17	17	37	11	
L 744 3 COUNTERS - USE OR REFER TO DOWN CLOCKS				26	26	17	55	16	
L 745 3 COUNTERS - USE OR REFER TO UP CLOCKS				26	26	17	55	16	
L 746 3 COUNTERS - USE OR REFER TO OTHER MODULUS COUNTERS				16	15	17	29	11	
L 747 3 COUNTERS - TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF UP-COUNTERS				23	22	25	49	13	
L 748 3 COUNTERS - TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF DOWN-COUNTERS				22	21	24	49	12	
L 749 3 COUNTERS - TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF UP-DOWN COUNTERS				21	19	22	45	11	
L 750 3 COUNTERS TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF DECADE COUNTERS				20	18	22	40	11	
L 751 3 COUNTERS - TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF RING COUNTERS				10	8	11	18	6	
L 752 3 COUNTERS - TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF COUNTERS FEEDING STORAGE REGISTERS				23	21	25	49	12	
L 753 3 COUNTERS - TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF SHIFT REGISTERS				23	22	24	51	13	
L 754 3 COUNTERS - TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF OTHER TYPE OF COUNTERS				16	15	17	32	10	
L 755 3 COUNTERS - CONSTRUCT TRUTH TABLES FROM LOGIC DIAGRAMS OF DECADE COUNTERS				11	11	10	23	9	
L 756 3 COUNTERS - DETERMINE THE STATE OF EACH FLIP-FLOP IN RINGS COUNTERS FOR SPECIFIC INPUT PULSES				9	9	10	17	6	
L 757 3 COUNTERS - DETERMINE THE APPROPRIATE AND GATE NECESSARY IN COUNT DETECT CIRCUITS TO INDICATE A REQUIRED COUNT				18	16	17	43	11	
M 758 1 TIMING CIRCUITS - WORK WITH SAUTOOTH WAVE GENERATORS				56	61	55	58	62	TIMING CIRCUITS
M 759 1 TIMING CIRCUITS - WORK WITH TRAPEZOIDAL WAVE GENERATORS				36	35	36	50	46	
M 760 1 TIMING CIRCUITS - WORK WITH PULSED OSCILLATORS				49	53	44	53	57	
M 761 1 TIMING CIRCUITS - WORK WITH BLOCKING OSCILLATORS				60	64	55	58	60	
M 762 1 TIMING CIRCUITS - WORK WITH MASTER STATION TIMING				36	35	33	40	35	
M 763 1 TIMING CIRCUITS - USE OR REFER TO RISE TIME				72	76	62	50	62	
M 764 1 TIMING CIRCUITS - USE OR REFER TO FALL OR FLYBACK TIME				69	72	64	50	60	
M 765 1 TIMING CIRCUITS - USE OR REFER TO SLEEP TIME				71	73	69	58	73	
M 766 1 TIMING CIRCUITS - USE OR REFER TO ELECTRICAL LENGTH OF SAWTOOTH WAVEFORMS				58	61	58	63	60	



PCT MORS RESP \*YES\*- 333X2 DAFSC/COMUS/OS GRPS

OCCUPATIONAL ANALYSIS PROGRAM  
USAFCOM (ATC), RANDOLPH AFB TX

TASK GROUP SUMMARY  
PERCENT MEMBERS PERFORMING

DY-TSK

		ALL	SKI.	7	9	5	5	11%
		SPC	SPC	SPC	SPC	SPC	SPC	
		014	C16	C17	022	025	026	
<b>DY-TSK</b>								
	M 801 3 MOTORS - DETERMINE OR MEASURE THE MAGNITUDE OR DIRECTION OF THE INDUCED VOLTAGE	11	15	11	0	27	14	
	M 802 3 MOTORS - WORK WITH SYNCHRONOUS MOTORS	42	45	38	58	40	46	
	M 803 3 MOTORS - WORK WITH INDUCTION MOTORS	43	45	41	58	51	44	
	M 804 3 MOTORS - WORK WITH SPLIT-PHASE MOTORS	29	27	31	50	29	27	
	M 805 3 MOTORS - WORK WITH SOME COMBINATION OF SYNCHRONOUS, INDUCTION, SPLIT-PHASE MOTORS	34	35	33	33	42	34	
	M 806 3 MOTORS - WORK WITH SERVOS OR SYNCHROS	57	64	48	67	57	67	
	M 807 3 GENERATORS/ALTERNATORS - INSPECT	25	28	22	67	31	29	
	M 808 3 GENERATORS/ALTERNATORS - CLEAN OR LUBRICATE	21	25	14	25	29	26	
	M 809 3 GENERATORS/ALTERNATORS - OPERATE	24	27	21	25	29	28	
	M 810 3 GENERATORS/ALTERNATORS - REMOVE OR REPLACE	19	22	15	33	28	22	
	M 811 3 GENERATORS/ALTERNATORS - REMOVE OR REPLACE PARTS	17	20	13	25	23	21	
	M 812 3 GENERATORS/ALTERNATORS - TROUBLESHOOT AS FAR AS CHECKING WIRE CONNECTIONS	22	27	16	42	28	28	
	M 813 3 GENERATORS/ALTERNATORS - TROUBLESHOOT DOWN TO COMPONENT	14	16	11	8	20	16	
<b>PARTS</b>								
	N 814 1 METERS - WORK WITH METERS	72	78	63	75	77	78	METER MOVEMENTS
	N 815 1 METERS - CONSIDER THE FUNCTIONS OF PERMANENT MAGNETS	31	36	29	17	37	36	
	N 816 1 METERS - CONSIDER THE FUNCTIONS OF MOVING COILS	33	37	27	17	38	36	
	N 817 1 METERS - CONSIDER THE FUNCTIONS OF SPIRAL SPRINGS	27	32	20	8	35	31	
	N 818 1 METERS - READ METER SCALES	17	19	64	75	80	79	
	N 819 1 METERS - EXTEND THE RANGE OF AMMETERS	36	39	32	33	48	46	
	N 820 1 METERS - ZERO OHMMETERS	70	77	61	50	78	77	
	N 821 1 METERS - ZERO AMMETERS	50	54	50	50	58	53	
	N 822 1 METERS - EXTEND THE RANGE OF VOLTMETERS	47	54	38	42	59	52	
	N 823 1 METERS - USE OR REFER TO VOLTMETER SENSITIVITY	53	54	50	58	55	55	
	N 824 1 METERS - CONSIDER BALLASTIC RESPONSE OF METER MOVEMENTS	12	14	10	0	22	11	
	N 825 1 METERS - CONSIDER OTHER METER MOVEMENTS	31	35	26	17	40	39	
	N 826 2 MAGNETIC AMPLIFIERS/SATURABLE REACTORS - WORK WITH HYSTERESIS CURVES OR LOOPS	27	28	25	33	28	30	SATURABLE REACTORS AND MAGNETIC AMPLIFIERS
	N 827 2 MAGNETIC AMPLIFIERS/SATURABLE REACTORS - INSPECT	25	26	23	33	25	28	
	N 828 2 MAGNETIC AMPLIFIERS/SATURABLE REACTORS - CLEAN	22	25	19	17	25	26	
	N 829 2 MAGNETIC AMPLIFIERS/SATURABLE REACTORS - ADJUST	21	24	17	17	20	26	
	N 830 2 MAGNETIC AMPLIFIERS/SATURABLE REACTORS - TROUBLESHOOT	22	25	19	17	23	26	
	N 831 2 MAGNETIC AMPLIFIERS/SATURABLE REACTORS - REMOVE OR REPLACE	22	24	18	17	25	25	
	N 832 2 MAGNETIC AMPLIFIERS/SATURABLE REACTORS - REMOVE OR REPLACE COMPONENTS	18	22	13	17	20	24	
	N 833 2 MAGNETIC AMPLIFIERS/SATURABLE REACTORS - USE OR REFER TO SCHEMATIC DRAWINGS	7	6	8	0	12	5	
	N 834 2 MAGNETIC AMPLIFIERS/SATURABLE REACTORS - INTERPRET SCHEMATIC DRAWINGS TO DEVELOP OUTPUT WAVEFORMS ACROSS REACTOR WINDINGS OR LOAD RESISTORS OF SATURABLE REACTORS	13	14	12	8	15	13	
	N 835 2 MAGNETIC AMPLIFIERS/SATURABLE REACTORS - MEASURE OUTPUT WAVEFORMS ACROSS REACTOR WINDINGS OR LOAD RESISTORS OF SATURABLE REACTORS	16	18	17	0	20	19	
	N 836 2 MAGNETIC AMPLIFIERS/SATURABLE REACTORS - INTERPRET SCHEMATIC DRAWINGS TO DEVELOP OUTPUT WAVEFORMS FOR MAGNETIC AMPLIFIERS	11	13	9	8	14	13	

PCT MEMRS RESP \*YES\*- 3Q3X2\_NAFSC/CONVS/OS GRPS

TASK GROUP SUMMARY  
PERCENT MEMBERS PERFORMINGOCCUPATIONAL ANALYSIS PROGRAM  
USAFOMC (AIC) RANDOLPH AFB TX

TASK	GROUP	SUMMARY	DY-TSK											
			ALL			SKL			SKL			US		
			SPC	SPC	SPC	SPC	SPC	SPC	SPC	SPC	SPC	SPC	SPC	SPC
N 837	2	MAGNETIC AMPLIFIERS/SATURABLE REACTORS - USE OR REFER TO SATURABLE REACTOR SCHEMATIC SYMBOLS	21	21	21	33	22	21	5	5	5	5	0's	
N 838	3	WAVESHAPING CIRCUITS - WORK WITH INTERVALS (RISE TIME AND FALL TIME)	64	68	59	67	72	72	67	67	67	67	67	WAVESHAPING CIRCUITS
N 839	3	WAVESHAPING CIRCUITS - USE OR REFER TO TRANSIENT	58	61	55	58	63	63	61	61	61	61	61	
N 840	3	WAVESHAPING CIRCUITS - USE OR REFER TO PULSE WIDTH (PW)	64	67	60	67	72	72	67	67	67	67	67	
N 841	3	WAVESHAPING CIRCUITS - USE OR REFER TO PULSE RECURRENCE TIME (PRT)	64	67	60	67	72	72	67	67	67	67	67	
N 842	3	WAVESHAPING CIRCUITS - USE OR REFER TO PULSE RECURRENCE FREQUENCY (PRF)	64	67	59	67	74	74	66	66	66	66	66	
N 843	3	WAVESHAPING CIRCUITS - USE OR REFER TO DIFFERENTIATING CIRCUITS	58	61	54	67	69	69	59	59	59	59	59	
N 844	3	WAVESHAPING CIRCUITS - USE OR REFER TO INTEGRATING CIRCUITS	52	54	50	67	68	68	50	50	50	50	50	
N 845	3	WAVESHAPING CIRCUITS - USE OR REFER TO THE CLASSIFICATION OF TIME CONSTANTS (TC) AS LONG, MEDIUM, OR SHORT	46	49	43	42	54	54	49	49	49	49	49	
N 846	3	WAVESHAPING CIRCUITS - DETERMINE WHETHER AN LP OR RC CIRCUIT IS DIFFERENTIATING OR INTEGRATING BASED ON THE TIME CONSTANT AND OUTPUT CONFIGURATION	32	31	33	42	35	35	30	30	30	30	30	
N 847	3	WAVESHAPING CIRCUITS - WORK WITH SQUARE WAVE GENERATORS	40	43	37	50	60	60	38	38	38	38	38	
N 848	3	WAVESHAPING CIRCUITS - WORK WITH RECTANGER WAVE GENERATORS	28	27	28	50	42	42	24	24	24	24	24	
N 849	3	WAVESHAPING CIRCUITS - WORK WITH TRIANGULAR (SANTOOH) WAVE GENERATORS	35	36	33	50	54	54	31	31	31	31	31	
N 850	3	WAVESHAPING CIRCUITS - WORK WITH RAMP (TRAPEZOICAL) GENERATORS	23	22	25	33	40	40	18	18	18	18	18	
N 851	3	WAVESHAPING CIRCUITS - WORK WITH FUNCTION GENERATORS	25	22	22	42	42	42	22	22	22	22	22	
O 852	1	SINGLE OR INDEPENDENT SIDEBOARD SYSTEMS - WORK ON SYSTEMS	10	13	5	0	20	20	11	11	11	11	11	
O 853	1	SINGLE OR INDEPENDENT SIDEBOARD SYSTEMS - INSPECT TRANSMIT OR RECEIVE SYSTEMS	8	10	5	0	15	15	9	9	9	9	9	SINGLE OR INDEPENDENT SIDEBOARD SYSTEMS.
O 854	1	SINGLE OR INDEPENDENT SIDEBOARD SYSTEMS - CLEAN TRANSMIT OR RECEIVE SYSTEMS	7	9	4	0	15	15	7	7	7	7	7	
O 855	1	SINGLE OR INDEPENDENT SIDEBOARD SYSTEMS - ALIGN TRANSMIT OR RECEIVE SYSTEMS	7	9	5	0	15	15	8	8	8	8	8	
O 856	1	SINGLE OR INDEPENDENT SIDEBOARD SYSTEMS - TROUBLESHOOT TO TRANSMIT OR RECEIVE SYSTEMS	7	9	4	0	15	15	7	7	7	7	7	
O 857	1	SINGLE OR INDEPENDENT SIDEBOARD SYSTEMS - TROUBLESHOOT TO TRANSMIT OR RECEIVE COMPONENTS	7	9	4	0	15	15	8	8	8	8	8	
O 858	1	SINGLE INDEPENDENT SIDEBOARD SYSTEMS - REMOVE OR REPLACE TRANSMIT OR RECEIVE SYSTEMS	7	8	4	0	15	15	7	7	7	7	7	
O 859	1	SINGLE OR INDEPENDENT SIDEBOARD SYSTEMS - REMOVE OR REPLACE TRANSMIT OR RECEIVE COMPONENTS	7	9	4	0	15	15	8	8	8	8	8	
O 860	1	SINGLE OR INDEPENDENT SIDEBOARD SYSTEMS - PERFORM TASKS ON AUDIO AMPLIFIERS	3	3	3	0	15	15	2	2	2	2	2	
O 861	1	SINGLE OR INDEPENDENT SIDEBOARD SYSTEMS - PERFORM TASKS ON BALANCED MODULATORS	5	6	3	0	15	15	4	4	4	4	4	
O 862	1	SINGLE OR INDEPENDENT SIDEBOARD SYSTEMS - PERFORM TASKS ON CARRIER OSCILLATORS	5	6	3	0	15	15	4	4	4	4	4	

### TASK GROUP SUMMARY

PCT. HRS. RESP	YES	NO	NOT APPLICABLE	NOT PERFORMED
TASK GROUP	SUMMARY			
PERCENT MEMBERS PERFORMING				
0 863	1 SINGLE OR INDEPENDENT SIDEBAND SYSTEMS - PERFORM TASKS ON LC FILTERS	5	7	2
0 864	1 SINGLE OR INDEPENDENT SIDEBAND SYSTEMS - PERFORM TASKS ON CRYSTAL FILTERS	5	7	2
0 865	1 SINGLE OR INDEPENDENT SIDEBAND SYSTEMS - PERFORM TASKS ON MECHANICAL FILTERS	4	6	2
0 866	1 SINGLE OR INDEPENDENT SIDEBAND SYSTEMS - PERFORM TASKS ON OSCILLATORS	6	4	3
0 867	1 SINGLE OR INDEPENDENT SIDEBAND SYSTEMS - PERFORM TASKS ON MIXERS	7	10	3
0 868	1 SINGLE OR INDEPENDENT SIDEBAND SYSTEMS - PERFORM TASKS ON DRIVERS	7	10	1
0 869	1 SINGLE OR INDEPENDENT SIDEBAND SYSTEMS - PERFORM TASKS ON POWER AMPLIFIERS	7	10	3
0 870	1 SINGLE OR INDEPENDENT SIDEBAND SYSTEMS - PERFORM TASKS ON RF AMPLIFIERS	7	9	3
0 871	1 SINGLE OR INDEPENDENT SIDEBAND SYSTEMS - PERFORM TASKS ON FREQUENCY CONVERTERS	5	7	3
0 872	1 SINGLE OR INDEPENDENT SIDEBAND SYSTEMS - PERFORM TASKS ON IF AMPLIFIERS	7	10	3
0 873	1 SINGLE OR INDEPENDENT SIDEBAND SYSTEMS - PERFORM TASKS ON DEMODULATORS	5	6	3
0 874	1 SINGLE OR INDEPENDENT SIDEBAND SYSTEMS - USE OR REFER TO RESPONSE CURVES FOR BANDWIDTH FILTERS	2	2	1
0 875	1 SINGLE OR INDEPENDENT SIDEBAND SYSTEMS - USE OR REFER TO PEAK POWER	6	8	4
0 876	1 SINGLE OR INDEPENDENT SIDEBAND SYSTEMS - USE OR REFER TO POWER OR EFFECTIVE POWER OF TRANSMITTERS	6	8	4
0 877	1 SINGLE OR INDEPENDENT SIDEBAND SYSTEMS - USE OR REFER TO FREQUENCY STABILITY	5	7	3
0 878	1 SINGLE OR INDEPENDENT SIDEBAND SYSTEMS - CALCULATE PEAK	5	7	2
0 879	1 SINGLE OR INDEPENDENT SIDEBAND SYSTEMS - TRACE SIGNALS OR CURRENT PATHS THROUGH TRANSMITTER SCHEMATIC DIAGRAMS	5	7	2
0 880	1 SINGLE OR INDEPENDENT SIDEBAND SYSTEMS - TRACE SIGNALS OR CURRENT PATHS THROUGH RECEIVER SCHEMATIC DIAGRAMS	5	7	2
0 881	1 SINGLE OR INDEPENDENT SIDEBAND SYSTEMS - PERFORM AERONAUTIC STATION ASSESSMENT PROGRAMS (ASAP)	1	2	0
0 882	2 PULSE MODULATION SYSTEMS - WORK ON	54	58	50
0 883	2 PULSE MODULATION SYSTEMS - INSPECT	53	57	47
0 884	2 PULSE MODULATION SYSTEMS - CLEAN	47	59	38
0 885	2 PULSE MODULATION SYSTEMS - ALIGN	49	55	40
0 886	2 PULSE MODULATION SYSTEMS - TROUBLESHOOT SYSTEM	48	54	49
0 887	2 PULSE MODULATION SYSTEMS - REMOVE OR REPLACE COMPONENTS	49	55	41
0 888	2 PULSE MODULATION SYSTEMS - REMOVE OR REPLACE	44	50	36
0 889	2 PULSE MODULATION SYSTEMS - REMOVE OR REPLACE COMPONENTS	48	54	40
0 890	2 PULSE MODULATION SYSTEMS - WORK ON PULSE-AMPLITUDE MODULATION (PAM)	38	58	41
				PULSE MODULATION SYSTEMS

## PCT. MEMBERS RESP 'YES' - 303X2 DAFSC/CONUS/OS GRPS

TASK GROUP SUMMARY  
PERCENT MEMBERS PERFORMING

TASK	GROUP	SUMMARY	OCCUPATIONAL ANALYSIS PROGRAM											
			USAFORC (ATIC) RANDOLPH AFB TX			ALL			SKL			US		
		BY-TASK	SPC	SPC	SPC	SPC	SPC	SPC	SPC	SPC	SPC	SPC	SPC	SPC
0 891 2 PULSE MODULATION SYSTEMS - WORK ON PULSE-DURATION MODULATION (PDM)			29	30	28	50	31	30						
0 892 2 PULSE MODULATION SYSTEMS - WORK ON PULSE-POSITION MODULATION (PPM)			19	22	16	42	29	21						
0 893 2 PULSE MODULATION SYSTEMS - WORK ON PULSE-CODE MODULATION (PCM)			26	29	21	42	40	26						
0 894 2 PULSE MODULATION SYSTEMS - WORK ON LINE PULSING MODULATION			12	13	11	25	20	11						
0 895 2 PULSE MODULATION SYSTEMS - DON'T KNOW TYPE OF MODULATION SYSTEM WORKED ON			13	17	0	0	20	16						
0 896 2 PULSE MODULATION SYSTEMS - WORK ON TIME DIVISION MULTIPLEXING (TDM)			7	9	4	25	15	8						
0 897 2 PULSE MODULATION SYSTEMS - PERFORM TASKS ON POWER SUPPLIES			51	56	46	42	63	54						
0 898 2 PULSE MODULATION SYSTEMS - PERFORM TASKS ON CHARGING CHOKEs AND CHARGING DIODEs			49	52	44	42	58	50						
0 899 2 PULSE MODULATION SYSTEMS - PERFORM TASKS ON PULSE FORMING NETWORKS			50	54	46	42	58	53						
0 900 2 PULSE MODULATION SYSTEMS - PERFORM TASKS ON TIMERS			43	46	39	42	46	46						
0 901 2 PULSE MODULATION SYSTEMS - PERFORM TASKS ON SWITCHES SUCH AS GAS THYRATRONS			49	53	45	42	54	53						
0 902 2 PULSE MODULATION SYSTEMS - PERFORM TASKS ON PULSE TRANSFORMERS			50	54	44	42	55	54						
0 903 2 PULSE MODULATION SYSTEMS - PERFORM TASKS ON TRANSMITTER TUBES			51	54	46	42	58	54						
0 904 2 PULSE MODULATION SYSTEMS - PERFORM TASKS ON RF AMPLIFIERS			49	53	44	42	60	51						
0 905 2 PULSE MODULATION SYSTEMS - PERFORM TASKS ON FREQUENCY CONVERTERS			39	43	34	33	49	41						
0 906 2 PULSE MODULATION SYSTEMS - PERFORM TASKS ON IF AMPLIFIERS			49	54	43	42	62	53						
0 907 2 PULSE MODULATION SYSTEMS - PERFORM TASKS ON DETECTORS			49	53	43	42	60	52						
0 908 2 PULSE MODULATION SYSTEMS - PERFORM TASKS ON VIDEO AMPLIFIERS			49	53	43	42	62	51						
0 909 2 PULSE MODULATION SYSTEMS - PERFORM TASKS ON POWER VIDEO AMPLIFIERS			35	39	30	17	43	38						
0 910 2 PULSE MODULATION SYSTEMS - USE OR REFER TO PULSE RECURRENCE FREQUENCY (PRF)			54	57	50	75	63	55						
0 911 2 PULSE MODULATION SYSTEMS - USE OR REFER TO PULSE RECURRENCE TIME (PRT)			54	57	50	75	63	55						
0 912 2 PULSE MODULATION SYSTEMS - USE OR REFER TO PULSE WIDTH (PW)			54	57	50	75	63	55						
0 913 2 PULSE MODULATION SYSTEMS - USE OR REFER TO PULSE SHAPE			54	57	50	75	63	56						
0 914 2 PULSE MODULATION SYSTEMS - USE OR REFER TO PEAK POWER			53	56	50	75	62	55						
0 915 2 PULSE MODULATION SYSTEMS - USE OR REFER TO AVERAGE POWER			53	57	49	75	62	56						
0 916 2 PULSE MODULATION SYSTEMS - USE OR REFER TO DUTY CYCLE (DC)			48	50	45	75	52	49						
0 917 2 PULSE MODULATION SYSTEMS - CALCULATE PULSE RECURRENCE TIME (PRT) OR PULSE RECURRENCE FREQUENCY (PRF)			47	49	43	75	54	48						

PCT. MBR'S RESP. YES - 303X2 DAFSC/CONUS/GS GRPS

OCCUPATIONAL ANALYSIS PROGRAM  
USAFCOM (ATC) RANDOLPH AFB TX

TASK GROUP SUMMARY  
PERCENT MEMBERS PERFORMING

DY-TSK		ALL	SKL			SKL			US			O's		
			SPC											
0 918 2 PULSE MODULATION SYSTEMS - MEASURE PULSE RECURRENCE (PRF)	TIME (PRT) OR PULSE RECURRENCE FREQUENCY (PRF)	50	53	47	67	60	51							
0 919 2 PULSE MODULATION SYSTEMS - USE FORMULAS TO CALCULATE AVERAGE POWER OR PEAK POWER OF PULSE MODULATION SYSTEMS		45	46	43	67	45	47							
0 920 2 PULSE MODULATION SYSTEMS - TRACE SIGNALS OR CURRENT PATHS THROUGH TRANSMITTER SCHEMATIC DIAGRAMS		50	54	46	58	58	53							
0 921 2 PULSE MODULATION SYSTEMS - TRACE SIGNALS OR CURRENT PATHS THROUGH RECEIVER SCHEMATIC DIAGRAMS		47	51	41	58	57	50							
0 922 3 ANTENNAS - WORK WITH		65	70	59	67	75	69							
0 923 3 ANTENNAS - INSPECT	CLEAN	69	70	55	67	72	70							
0 924 3 ANTENNAS - PHYSICALLY ALIGN	ELECTRICALLY ALIGN	55	64	44	25	71	63							
0 925 3 ANTENNAS - TROUBLESHOOT TO	COMPONENTS	52	58	44	33	68	56							
0 926 3 ANTENNAS - TROUBLESHOOT TO	COMPONENTS	51	57	43	33	69	54							
0 927 3 ANTENNAS - TROUBLESHOOT TO	COMPONENTS	54	62	44	33	72	59							
0 928 3 ANTENNAS - TROUBLESHOOT TO	COMPONENTS	51	58	42	33	69	55							
0 929 3 ANTENNAS - REMOVE OR INSTALL	COMPONENTS	30	34	25	33	51	29							
0 930 3 ANTENNAS - REMOVE OR REPLACE	COMPONENTS	49	57	39	33	66	55							
0 931 3 ANTENNAS - USE OR REFER TO TECHNICAL DATA CONTAINING REPRESENTATIONS OF ECR ELECTRIC FIELD LINES		23	24	21	25	28	23							
0 932 3 ANTENNAS - USE OR REFER TO TECHNICAL DATA CONTAINING REPRESENTATIONS OF H OR MAGNETIC FIELD LINES		21	21	20	25	25	20							
0 933 3 ANTENNAS - DETERMINE THE DIRECTION OF THE MAGNETIC LINES IN RELATION TO THE ELECTRIC LINES OF FORCE		15	18	12	17	25	16							
0 934 3 ANTENNAS - USE OR REFER TO THE GENERAL RULE THAT ANTENNAS OF CORRECT LENGTH (HALF-WAVE) ACT AS RESISTIVE LOADS TO THE GENERATOR		19	22	15	25	23	23							
0 935 3 ANTENNAS - USE OR REFER TO THE GENERAL RULE THAT ANTENNAS LONGER THAN HALF-WAVE ACT AS INDUCTIVE LOADS TO THE GENERATOR		13	14	11	17	18	14							
0 936 3 ANTENNAS - USE OR REFER TO THE GENERAL RULE THAT ANTENNAS SHOTTER THAN A HALF-WAVE ACT AS CAPACITIVE LOADS TO THE GENERATOR		13	14	11	17	18	14							
0 937 3 ANTENNAS - WORK WITH HERTZ		4	6	2	0	14	3							
0 938 3 ANTENNAS - WORK WITH MARCONI		2	2	2	0	3	2							
0 939 3 ANTENNAS - WORK WITH RHOMBIC		3	3	2	0	6	2							
0 940 3 ANTENNAS - WORK WITH DIPOLE		22	22	21	42	34	19							
0 941 3 ANTENNAS - WORK WITH SCIMITAR		2	3	1	0	6	1							
0 942 3 ANTENNAS - WORK WITH PARABOLIC		54	57	51	67	45	56							
0 943 3 ANTENNAS - WORK WITH GROUND PLANE		8	10	5	8	14	9							
0 944 2 ANTENNAS - WORK WITH BROADSIDE ARRAYS		5	4	5	17	6	4							
0 945 3 ANTENNAS - WORK WITH END-FIRE ARRAYS		3	4	2	6	6	4							
0 946 3 ANTENNAS - WORK WITH CARCIOFO ARRAYS		4	3	5	0	6	2							
0 947 3 ANTENNAS - WORK WITH COLLINEAR ARRAYS		5	6	2	0	8	6							
0 948 3 ANTENNAS - WORK WITH PHASE ARRAYS		16	17	15	25	23	15							
0 949 3 ANTENNAS - USE OR REFER TO THE TERM ELECTROMAGNETIC INDUCTION FIELDS		10	12	7	0	14	12							

PCT MBRS RESP YES - 303X2 DAFSC/COMUS/OS GRPS

OCCUPATIONAL ANALYSIS PROGRAM  
USAFCOM (ATC) RANDOLPH AFB TXTASK GROUP SUMMARY  
PERCENT MEMBERS PERFORMING

D-Y-TSK	ALL	5		9		5		5		0's
		SKL	SKL	SKL	SKL	US	SPC	SPC	SPC	
	016	016	016	017	017	022	022	025	026	
0 950 3 ANTENNAS - MEASURE ELECTROMAGNETIC INDUCTION FIELDS OF RADIATION FIELDS		5	7	3	0	11	7			
0 951 3 ANTENNAS - USE OR REFER TO THE TERM ELECTROMAGNETIC		21	21	20	17	25	22			
0 952 3 ANTENNAS - MEASURE ELECTROMAGNETIC RADIATION FIELDS		8	10	6	0	12	10			
0 953 3 ANTENNAS - USE OR REFER TO THE TIME PHASE OF ELECTRIC (E) AND MAGNETIC (H) COMPONENTS IN AN ANTENNA ROTATION		9	10	7	0	18	9			
0 954 3 ANTENNAS - USE OR REFER TO THE TIME PHASE OF ELECTRIC (E) AND MAGNETIC (H) COMPONENTS IN AN ANTENNA INDUCTION FIELD		7	6	6	0	14	7			
0 955 3 ANTENNAS - WORK ON LINEARLY POLARIZED		39	39	42	40	40	40			
0 956 3 ANTENNAS - WORK ON CIRCULAR POLARIZED		29	31	42	31	32	32			
0 957 3 ANTENNAS - MEASURE OR DETERMINE THE POLARITY OF		17	16	17	12	19	19			
0 958 3 ANTENNAS - CONSTRUCT, OR MAKE CALCULATIONS NECESSARY TO CONSTRUCT ANTENNAS OF CORRECT LENGTH FOR SPECIFIC WAVE LENGTHS		3	3	4	6	5	2			
0 959 3 ANTENNAS - WORK WITH ANTENNA ARRAYS CONTAINING PARASITIC ELEMENTS SERVING AS DIRECTORS		7	8	5	0	19	6			
0 960 3 ANTENNAS - WORK WITH ANTENNA ARRAYS CONTAINING PARASITIC ELEMENTS SERVING AS REFLECTORS		42	46	42	45	47	47			
0 961 3 ANTENNAS - DON'T KNOW WHAT KIND OF ELEMENT ARRAYS WORKED ON CONTAIN		24	27	20	33	31	26			
0 962 3 ANTENNAS - WORK ON UNIDIRECTIONAL ELEMENTS SERVING AS DIRECTORS		38	42	34	58	58	51			
0 963 3 ANTENNAS - WORK ON BI-DIRECTIONAL		22	29	13	8	29	28			
0 964 3 ANTENNAS - WORK WITH ROTARY ARRAYS		32	35	29	33	45	34			
P 965 1 TRANSMISSION LINES - WORK WITH TRANSMISSION LINES - REFER TO OR USE COPPER LOSS OR IZR LOSS		5	5	4	0	11	9			
P 966 1 TRANSMISSION LINES - REFER TO OR USE SMIN EFFECTS OF HIGH FREQUENCY CURRENTS IN		7	7	6	0	9	8			
P 968 1 TRANSMISSION LINES - REFER TO OR USE RADIATION LOSS IN HIGH FREQUENCY LINES - REFER TO OR USE DIELECTRIC LOSS IN		12	13	12	8	20	12			
P 969 1 TRANSMISSION LINES - REFER TO OR USE LEAKAGE LOSSES IN		10	11	9	0	12	11			
P 970 1 TRANSMISSION LINES - REFER TO OR USE LEAKAGE LOSSES IN		14	15	12	17	15	17			
P 971 1 TRANSMISSION LINES - WORK WITH TWISTED PAIR		5	6	4	6	12	5			
P 972 1 TRANSMISSION LINES - WORK WITH TWIN LEAD		5	7	4	6	11	6			
P 973 1 TRANSMISSION LINES - WORK WITH OPEN TWO-WIRE		4	6	2	0	11	5			
P 974 1 TRANSMISSION LINES - WORK WITH FLEXIBLE COAXIAL CABLE		30	32	27	33	40	31			
P 975 1 TRANSMISSION LINES - WORK WITH RIGID COAXIAL CABLE		26	30	26	33	40	26			
P 976 1 TRANSMISSION LINES - TROUBLESHOOT		28	32	23	25	42	30			
P 977 1 TRANSMISSION LINES - ANALYZE VOLTAGE OR CURRENT WAVEFORMS TO DETERMINE THE TYPE OF TERMINATION (OPEN, SHORTED, CAPACITIVE, INDUCTIVE)		17	18	14	17	26	17			
P 978 1 TRANSMISSION LINES - SELECT APPROPRIATE TERMINATIONS TO ACHIEVE DESIRED WAVEFORMS		22	22	17	25	34	21			
P 979 1 TRANSMISSION LINES - USE OR REFER TO SCHEMATIC SYMBOLS FOR LINE TERMINATIONS IN TERMS OF CIRCUIT TERMINATIONS		22	22	21	25	24	22			
P 980 1 TRANSMISSION LINES - MEASURE STANDING WAVE RATIOS (SWR)		20	34	25	17	35	30			
P 981 1 TRANSMISSION LINES - CALCULATE STANDING WAVE RATIOS (SWR)		22	24	19	17	29	24			
P 982 1 TRANSMISSION LINES - PERFORM THE CALCULATIONS NECESSARY TO DETERMINE THE IMPEDANCE AND LENGTH OF QUARTER-WAVELENGTH MATCHING TRANSFORMERS TO MATCH TRANSMISSION LINES TO LOADS		6	6	8	8	6	6			

## PCT MEMRS RESP 'YES' - 303X2 CAFSC/CONUS/OS GRPS

TASK GROUP SUMMARY  
PERCENT MEMBERS PERFORMING

	TASK	GROUP	SUMMARY	PERCENT MEMBERS PERFORMING											
				ALL			SKL			9			5		
		DY-TSK	SPC	SPC	SPC	SPC	SPC	SPC	SPC	SPC	SPC	SPC	SPC	SPC	SPC
(	P 983 1	TRANSMISSION LINES - WORK WITH LINES WHICH ARE MATCHED	15	18	11	17	20	19							
(	P 984 1	TO LOADS USING MATCHING TRANSFORMERS	2	10	5	8	14	16							
(	P 985 2	TRANSMISSION LINES - WORK WITH LINES WHICH ARE MATCHED TO LOADS USING DELTA MATCHING	16	16	17	17	18	16							
(	P 986 1	TRANSMISSION LINES - USE OR REFER TO THE TERM CHARACTERISTIC IMPEDANCE (Z0)	7	7	6	0	11	8							
(	P 987 1	TRANSMISSION LINES - USE OR REFER TO THE TERM CUT OFF FREQUENCY	6	7	4	8	11	7							
(	P 988 1	TRANSMISSION LINES - USE OR REFER TO THE TERM VELOCITY FACTOR (K)	5	5	6	0	8	4							
(	P 989 1	TRANSMISSION LINES - COMPUTE THE ELECTRICAL LENGTH OF LINES FOR PARTICULAR FREQUENCIES	9	10	8	8	12	9							
(	P 990 1	TRANSMISSION LINES - CONSTRUCT LINES OF PARTICULAR ELECTRICAL LENGTHS FOR GIVEN FREQUENCIES	9	10	7	8	15	16							
(	P 991 1	TRANSMISSION LINES - USE OR REFER TO THE GENERAL RULE THAT AS THE FREQUENCY INCREASES AND THE PHYSICAL LENGTH OF TRANSMISSION LINES REMAIN CONSTANT, THE ELECTRICAL LENGTH INCREASES	7	7	7	8	9	8							
(	P 992 1	TRANSMISSION LINES - WORK WITH MONORESONANT (FLAT)	7	9	5	8	15	8							
(	P 993 1	TRANSMISSION LINES - WORK WITH RESONANT	13	15	11	6	20	14							
(	P 994 1	TRANSMISSION LINES - WORK WITH LINES WHICH ARE MATCHED TO LOADS USING STUB MATCHING	13	12	13	6	14	12							
(	P 995 2	WAVEGUIDES OR CAVITY RESONATORS - WORK WITH WAVEGUIDES OR CAVITY RESONATORS - INSPECT	60	64	55	67	72	62							
(	P 997 2	WAVEGUIDES OR CAVITY RESONATORS - CLEAN	59	64	52	67	72	62							
(	P 998 2	WAVEGUIDES OR CAVITY RESONATORS - PRESSURIZE	52	60	42	55	68	58							
(	P 999 2	WAVEGUIDES OR CAVITY RESONATORS - PURGE	55	62	46	6	72	59							
(	P 1000 2	WAVEGUIDES OR CAVITY RESONATORS - TROUBLESHOOT	46	50	41	0	55	49							
(	P1001 2	WAVEGUIDES OR CAVITY RESONATORS - REMOVE OR INSTALL WAVEGUIDES	47	52	39	33	60	50							
(	P1002 2	WAVEGUIDES OR CAVITY RESONATORS - REMOVE OR INSTALL WAVEGUIDE SECTIONS	41	46	33	33	65	40							
(	P1003 2	WAVEGUIDES OR CAVITY RESONATORS - REMOVE OR INSTALL DUMMY LOADS	53	59	46	33	74	55							
(	P1004 2	WAVEGUIDES OR CAVITY RESONATORS - REMOVE OR INSTALL E BENDS	34	35	32	25	49	31							
(	P1005 2	WAVEGUIDES OF CAVITY RESONATORS - REMOVE OR INSTALL H BENDS	44	49	37	33	62	44							
(	P1006 2	WAVEGUIDES OR CAVITY RESONATORS - REMOVE OR INSTALL OTHER BENDS	37	42	30	17	55	38							
(	P1007 2	WAVEGUIDES OR CAVITY RESONATORS - REMOVE OR INSTALL CHoke JOINTS	35	37	32	17	45	35							
(	P1008 2	WAVEGUIDES OR CAVITY RESONATORS - REMOVE OR INSTALL ROTATING JOINTS	44	49	39	33	66	43							
(	P1009 2	WAVEGUIDES OR CAVITY RESONATORS - REMOVE OR INSTALL DIRECTIONAL COUPLERS	46	54	40	33	69	50							

OCCUPATIONAL ANALYSIS PROGRAM  
USAFOMC (ATC) RANDOLPH AFB TX

A36

PCT MTRS RESP "YES" - 303X2 DAFSC/COMUS/AOS GRPS

**TASK GROUP SUMMARY  
PERCENT MEMBERS PERFORMING**

D/T/SK	ALL	5		7		9		5		5		Q26
		SKL	SKL	SKL	SKL	US	US	0's	SPC	SPC	SPC	SPC
P1010 2 WAVEGUIDES OR CAVITY RESONATORS - REMOVE OR INSTALL BIDIRECTIONAL COUPLERS	49	49	49	36	33	60	46					
P1011 2 WAVEGUIDES OR CAVITY RESONATORS - REMOVE OR INSTALL WAVEGUIDE SHUTTERS	29	32	25	25	31	33						
P1012 2 WAVEGUIDES OR CAVITY RESONATORS - REMOVE OR INSTALL TRANSMIT (TR) OR ANTI-TRANSMIT (ATR) TUBES	46	53	38	33	55	52						
P1013 2 WAVEGUIDES OR CAVITY RESONATORS - USE OR REFER TO "A"	13	13	12	17	14	13						
P1014 2 WAVEGUIDES OR CAVITY RESONATORS - USE OR REFER TO "B" WALL OF WAVEGUIDES	13	13	12	17	14	13						
P1015 2 WAVEGUIDES OR CAVITY RESONATORS - USE OR REFER TO CUI OF FREQUENCY	14	14	13	0	17	14						
P1016 2 WAVEGUIDES OR CAVITY RESONATORS - USE OR REFER TO POWER-DETERMINING WALL	12	14	9	8	17	14						
P1017 2 WAVEGUIDES OR CAVITY RESONATORS - USE OR REFER TO ELECTRIC FIELD BOUNDARY CONDITIONS	10	13	7	8	14	13						
P1018 2 WAVEGUIDES OR CAVITY RESONATORS - USE OR REFER TO MAGNETIC FIELD BOUNDARY CONDITIONS	9	10	5	9	12	10						
P1019 2 WAVEGUIDES OR CAVITY RESONATORS - USE OR REFER TO DUPLIXER FIELD BOUNDARY CONDITIONS	8	10	5	0	12	10						
P1020 2 WAVEGUIDES OR CAVITY RESONATORS - USE OR REFER TO GENERAL RULE THAT MOST WAVEGUIDES ARE MADE WITH A "B" OF WALL SIZE OF .7, WAVELENGTHS OF THE OPERATING FREQUENCY	8	10	5	0	12	10						
P1021 2 WAVEGUIDES OR CAVITY RESONATORS - USE OR REFER TO THE GENERAL RULE THAT MOST "A" WALL RANGE FROM .2 TO .5	9	10	7	8	11	11						
P1022 2 WAVEGUIDES OR CAVITY RESONATORS - USE OR REFER TO THE WAVELENGTHS IN SIZE, WITH .35 AS AN AVERAGE	7	8	6	8	9	9						
P1023 2 WAVEGUIDES OR CAVITY RESONATORS - COMPUTE THE LENGTH OF A WAVEGUIDE FOR SPECIFIC INSTALLATION	6	8	4	0	9	7						
P1024 2 WAVEGUIDES OR CAVITY RESONATORS - USE THE RIGHT HAND RULE TO DETERMINE THE DIRECTION OF PROPAGATION, DIRECTION OF "E" FIELD, OR DIRECTION OF "H" LINES IN WAVEGUIDES	12	13	11	0	14	13						
P1025 2 WAVEGUIDES OR CAVITY RESONATORS - USE OR REFER TO THE TIME PHASE OF PEAK "E" OR "H" LINES IN WAVEGUIDES	6	7	5	0	8	7						
P1026 2 WAVEGUIDES OR CAVITY RESONATORS - ENERGY COUPLING USED - HIGH POWER PROBES	5	6	3	0	6	6						
P1029 2 WAVEGUIDES OR CAVITY RESONATORS - ENERGY COUPLING USED - LOW POWER PROBES	31	27	35	42	34	26						
P1030 2 WAVEGUIDES OR CAVITY RESONATORS - ENERGY COUPLING USED - LOOPS	16	37	36	58	38	37						
P1031 2 WAVEGUIDES OR CAVITY RESONATORS - ENERGY COUPLING USED - APERTURES (.1INDS 0 IRIS)	47	47	42	52	46							

**TASK GROUP SUMMARY**  
**PERCENT MEMBERS PERFORMING**

	TASK	GROUP	SKL	S	7	9	5	0's	ALL			
									SPC	SPC	SPC	SPC
		DY-TSK							014	016	017	022
	P1032	2	WAVEGUIDES OR CAVITY RESONATORS - JOINTS USED - CHOME	45	43	48	58	49	43			
	P1033	2	WAVEGUIDES OR CAVITY RESONATORS - JOINTS USED - ROTATING	55	57	51	67	56	56			
	P1034	2	WAVEGUIDES OR CAVITY RESONATORS - JOINTS USED - DON'T KNOW KIND	9	12	6	0	14	11			
	P1035	2	WAVEGUIDES OR CAVITY RESONATORS - TUNE CAVITY RESONATORS	30	33	26	25	38	31			
	P1036	2	WAVEGUIDES OR CAVITY RESONATORS - TUNE CAVITY RESONATORS USING ELECTRICAL METHODS	36	40	32	42	35	42			
	P1037	2	WAVEGUIDES OR CAVITY RESONATORS - MEASURE THE FREQUENCY OF SIGNALS ON CAVITY RESONATORS	31	34	27	42	29	35			
	P1038	3	MICROWAVE AMPLIFIERS AND OSCILLATORS - WORK WITH KLYSTRONS, TRAVELING WAVE TUBES (TWT), PARAMETRIC AMPLIFIERS, OR MAGNETRONS	54	58	49	67	58	58	MICROWAVE AMPLIFIERS AND OSCILLATORS		
	P1039	3	MICROWAVE AMPLIFIERS AND OSCILLATORS - USE OR REFER TO RF LOSSES IN EXTERNAL CIRCUITRY	18	20	15	8	20	21			
	P1040	3	MICROWAVE AMPLIFIERS AND OSCILLATORS - USE OR REFER TO INTERELECTRODE CAPACITANCE	19	22	16	8	23	22			
	P1041	3	MICROWAVE AMPLIFIERS AND OSCILLATORS - USE OR REFER TO ELECTRON TRANSIT TIME	13	15	12	8	15	15			
	P1042	3	MICROWAVE AMPLIFIERS AND OSCILLATORS - USE OR REFER TO LEAD INDUCTANCE	26	29	23	25	31	29			
	P1043	3	MICROWAVE AMPLIFIERS AND OSCILLATORS - USE OR REFER TO PRINCIPLE OF ELECTRON VELOCITY MODULATION	26	26	27	8	26	26			
	P1044	3	MICROWAVE AMPLIFIERS AND OSCILLATORS - USE OR REFER TO EMISSION BUNCHING	31	31	8	31	31	32			
	P1045	3	MICROWAVE AMPLIFIERS AND OSCILLATORS - WORK WITH TWO-CAVITY KLYSTRONS	7	7	7	8	12	6			
	P1046	3	MICROWAVE AMPLIFIERS AND OSCILLATORS - WORK WITH THREE-CAVITY KLYSTRONS	32	31	32	8	28	33			
	P1047	3	MICROWAVE AMPLIFIERS AND OSCILLATORS - WORK WITH REFLEX KLYSTRONS	18	16	22	42	15	16			
	P1048	3	MICROWAVE AMPLIFIERS AND OSCILLATORS - WORK WITH TRAVELING-WAVE TUBES (TWT)	31	32	30	25	35	29			
	P1049	3	MICROWAVE AMPLIFIERS AND OSCILLATORS - WORK WITH MONODEFERALINE PARAMETRIC AMPLIFIERS	8	10	6	6	8	11			
	P1050	3	MICROWAVE AMPLIFIERS AND OSCILLATORS - WORK WITH CONVERTER PARAMETRIC AMPLIFIERS	6	7	4	17	11	6			
	P1051	3	MICROWAVE AMPLIFIERS AND OSCILLATORS - WORK WITH MAGNETRONS	21	23	19	58	20	24			
	P1052	3	MICROWAVE AMPLIFIERS AND OSCILLATORS - WORK WITH BACKWARD WAVE OSCILLATORS (BWO)	19	20	17	17	20	21			
	P1053	3	MICROWAVE AMPLIFIERS AND OSCILLATORS - INSPECT KLYSTRONS OR TWT'S	42	43	47	58	51	41			
	P1054	3	MICROWAVE AMPLIFIERS AND OSCILLATORS - CLEAN KLYSTRONS OR TWT'S	36	40	31	17	49	38			
	P1055	3	MICROWAVE AMPLIFIERS AND OSCILLATORS - TUNE KLYSTRONS OR TWT ELECTRICALLY	29	31	27	25	38	29			

## PCU HRS. RESP. YES - 303X2 DASSACOMUSOS GRPS

TASK GROUP SUMMARY PERCENT MEMBERS PERFORMING	Dy-TSK	ALL						0's					
		SKL	SKL	SKL	SPC								
P1056 3 MICROWAVE AMPLIFIERS AND OSCILLATORS - TUNE KLYSTRONS OR TWT MECHANICALLY		32	36	26	25	35	36						
P1057 3 MICROWAVE AMPLIFIERS OR OSCILLATORS - PERFORM OPERATIONAL CHECKS OF KLYSTRONS OR TWTS		42	47	37	33	55	44						
P1058 3 MICROWAVE AMPLIFIERS AND OSCILLATORS - TROUBLESHOOT KLYSTRONS OR TWTS		40	44	35	25	54	41						
P1059 3 MICROWAVE AMPLIFIERS AND OSCILLATORS - REMOVE OR REPLACE COMPLETE KLYSTRON OR TWT		41	46	34	25	57	43						
P1060 3 MICROWAVE AMPLIFIERS AND OSCILLATORS - REMOVE OR REPLACE KLYSTRON OR TWT COMPONENTS		24	28	19	8	35	27						
P1061 3 MICROWAVE AMPLIFIERS AND OSCILLATORS - INSPECT PARAMETRIC AMPLIFIERS		13	15	11	50	14	16						
P1062 3 PARAMETRIC AMPLIFIERS - CLEAN		12	14	9	17	14	14						
P1063 3 PARAMETRIC AMPLIFIERS - ADJUST		13	15	10	25	14	15						
P1064 3 PARAMETRIC AMPLIFIERS - TUNE		13	14	11	25	12	15						
P1065 3 PARAMETRIC AMPLIFIERS - PERFORM OPERATIONAL CHECKS		14	15	12	33	11	17						
P1066 3 PARAMETRIC AMPLIFIERS - TROUBLESHOOT		13	15	10	25	14	15						
P1067 3 PARAMETRIC AMPLIFIERS - REMOVE OR REPLACE		11	13	9	23	12	13						
P1068 3 PARAMETRIC AMPLIFIERS - REMOVE OR REPLACE COMPONENTS		10	12	6	17	14	12						
P1069 3 MAGNETRONS - INSPECT		19	19	17	58	14	22						
P1070 3 MAGNETRONS - CLEAN		16	19	15	25	14	21						
P1071 3 MAGNETRONS - ADJUST		17	19	14	25	15	21						
P1072 3 MAGNETRONS - TUNE		17	18	15	25	15	20						
P1073 3 MAGNETRONS - PERFORM OPERATIONAL CHECKS		19	22	16	42	18	23						
P1074 3 MAGNETRONS - TROUBLESHOOT		16	18	19	25	17	19						
P1075 3 MAGNETRONS - REMOVE OR REPLACE		16	18	13	25	15	20						
P1076 3 MAGNETRONS - REMOVE OR REPLACE COMPONENTS		10	11	8	0	8	12						
P1077 3 TWO CAVITY KLYSTRONS - USE OR REFER TO THE OPERATING PRINCIPLES OF COLLECTOR PLATES		7	7	6	12	6							
P1078 3 TWO CAVITY KLYSTRONS - USE OR REFER TO THE OPERATING PRINCIPLES OF CATCHER CAVITIES		6	6	5	6	11	5						
P1079 3 TWO CAVITY KLYSTRONS - USE OR REFER TO THE OPERATING PRINCIPLES OF CATCHER GRIDS		5	7	4	8	12	5						
P1080 3 TWO CAVITY KLYSTRONS - USE OR REFER TO THE OPERATING PRINCIPLES OF BUNCHER CAVITIES		5	6	5	8	11	5						
P1081 3 TWO CAVITY KLYSTRONS - USE OR REFER TO THE OPERATING PRINCIPLES OF DRIFT SPACES		6	6	5	8	12	5						
P1082 3 TWO CAVITY KLYSTRONS - USE OR REFER TO THE OPERATING PRINCIPLES OF BUNCHER GRIDS		5	6	5	8	11	5						
P1083 3 TWO CAVITY KLYSTRONS - USE OR REFER TO THE OPERATING PRINCIPLES OF CONTROL GRIDS		5	6	4	8	11	5						
P1084 3 TWO CAVITY KLYSTRONS - USE OR REFER TO THE OPERATING PRINCIPLES OF CATHODES		6	7	6	8	11	6						
P1085 3 TWO CAVITY KLYSTRONS - USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRONS - USE OR REFER TO THE OPERATING PRINCIPLES OF REPELLEUR (REFLECTION) PLATES		8	6	8	8	12	7						
P1086 3 REFLEX KLYSTRONS - USE OR REFER TO THE OPERATING PRINCIPLES OF REPELLEUR (REFLECTION) PLATES		14	12	17	42	12	12						

UNSAFE CONDITIONS ANALYSIS PROGRAM

PCT MBR'S RESP YES - 303X2 DAFSC/CONUS/OS GRPS

TASK	GROUP SUMMARY PERCENT MEMBERS PERFORMING	BY-TSK	ALL SPC	SKL SPC	US SPC	O's SPC	REGISTERS
P1087	3 REFLEX KLYSTRONS - USE OR REFER TO THE OPERATING PRINCIPLES OF GRIDS	14	13	15	33	12	13
P1088	3 REFLEX KLYSTRONS - USE OR REFER TO THE OPERATING PRINCIPLES OF GRID CAVITY GAPS	11	11	11	25	11	11
P1089	3 REFLEX KLYSTRONS - USE OR REFER TO THE OPERATING PRINCIPLES OF RESONANT CAVITIES	14	13	15	33	11	14
P1090	3 REFLEX KLYSTRONS - USE OR REFER TO THE OPERATING PRINCIPLES OF MAGNETIC COUPLING LOOPS	11	11	11	42	8	12
P1091	3 REFLEX KLYSTRONS - USE OR REFER TO THE OPERATING PRINCIPLES OF FILAMENTS	15	13	17	33	11	14
P1092	3 REFLEX KLYSTRONS - USE OR REFER TO THE OPERATING PRINCIPLES OF CATHODES	15	12	18	33	11	13
P1093	3 REFLEX KLYSTRONS - USE OR REFER TO THE OPERATING PRINCIPLES OF OUTLET LEADS	14	13	16	33	12	13
P1094	3 TRAVELING WAVE TUBES - USE OR REFER TO THE OPERATING PRINCIPLES OF FILAMENTS OF HELIUM	24	24	24	8	34	22
P1095	3 TRAVELING WAVE TUBES - USE OR REFER TO THE OPERATING PRINCIPLES OF CATHODES OF HELIUM	24	24	23	8	31	22
P1096	3 TRAVELING WAVE TUBES - USE OR REFER TO THE OPERATING PRINCIPLES OF MODULATOR GRIDS OF HELIUM	20	21	19	8	26	20
P1097	3 TRAVELING WAVE TUBES - USE OR REFER TO THE OPERATING PRINCIPLES OF ANODES OF HELIUM	23	23	23	8	28	22
P1098	3 TRAVELING WAVE TUBES - USE OR REFER TO THE OPERATING PRINCIPLES OF HELIUM	23	22	24	8	26	22
P1099	3 TRAVELING WAVE TUBES - USE OR REFER TO THE OPERATING PRINCIPLES OF COLLECTORS OF HELIUM	23	22	24	8	29	21
P1100	3 TRAVELING WAVE TUBES - USE OR REFER TO THE OPERATING PRINCIPLES OF MAGNETS OF HELIUM	20	21	20	8	26	20
P1101	3 TRAVELING WAVE TUBES - USE OR REFER TO THE OPERATING PRINCIPLES OF ATTENATORS OF HELIUM	23	23	22	8	31	22
P1102	3 PARAMETRIC AMPLIFIERS - PERFORM TASKS ON FERRITE CIRCULATORS	10	12	7	17	11	13
P1103	3 PARAMETRIC AMPLIFIERS - PERFORM TASKS ON ANODES OF BATTERIES	4	5	2	25	6	5
P1104	3 PARAMETRIC AMPLIFIERS - PERFORM TASKS ON ANODE COOLING PINS OF	9	9	8	17	8	10
P1105	3 PARAMETRIC AMPLIFIERS - PERFORM TASKS ON COUPLING LOOPS OF	5	6	3	25	9	6
P1106	3 PARAMETRIC AMPLIFIERS - PERFORM TASKS ON HEATER LEADS OF ISOLATORS	8	10	6	25	11	10
P1107	3 PARAMETRIC AMPLIFIERS - PERFORM TASKS ON REVERSE-BIAS	10	12	7	25	15	12
P1108	3 MAGNETRONS - PERFORM TASKS ON SIGNAL CAVITIES	8	10	9	25	11	11
P1109	3 MAGNETRONS - PERFORM TASKS ON ISOLER CAVITIES	5	6	3	25	9	8
P1110	3 MAGNETRONS - PERFORM TASKS ON VARACTOR DIODES	8	10	6	25	11	10
P1111	3 MAGNETRONS - PERFORM TASKS ON HEATER LEADS OF	10	11	8	25	14	11
P1112	3 MAGNETRONS - PERFORM TASKS ON RESONANT CAVITIES OF	9	11	8	3	9	11
P1113	3 MAGNETRONS - PERFORM TASKS ON CATHODES OF	10	11	9	17	11	11
P1114	3 MAGNETRONS - PERFORM TASKS ON MAGNETS OF	9	10	8	25	8	11
P1115	1 REGISTERS - USE OR REFER TO STORAGE	20	26	31	33	51	18

**OCCUPATIONAL ANALYSIS PROGRAM  
USAFCOM STAFF RANDOLPH AF BFT IX**

TASK GROUP	MEMBERS PERFORMING	Dy-Tsk									
		5		7		9		5		5	
		ALL	SKL	SKL	SKL	US	US	0's	SPC	SPC	SPC
Q1116	1 REGISTERS - USE OR REFER TO SHIFT	29	28	32	33	52	52	20			
Q1117	1 REGISTERS - USE OR REFER TO LOGIC SYMBOLS OF SHIFT	28	26	30	33	52	52	19			
Q1118	1 REGISTERS - USE OR REFER TO LOGIC SYMBOLS OF STORAGE	27	26	29	33	51	51	19			
Q1119	1 REGISTERS - TRACE THE DATA FLOW THROUGH LOGIC DIAGRAMS OF SHIFT	26	26	26	25	49	49	15			
Q1120	1 REGISTERS - TRACE TIME DATA FLOW THROUGH LOGIC DIAGRAMS OF REGISTER OTHER THAN SHIFT OR STORAGE	26	25	24	25	48	48	18			
Q1121	1 REGISTERS- DETERMINE THE STATE OF EACH FLIP-FLOP OF A SHIFT REGISTER AFTER A SPECIFIED NUMBER OF SHIFT PULSES HAVE PASSED	26	24	24	25	49	49	16			
Q1122	2 STORAGE DEVICES - WORK WITH SYSTEMS	27	27	28	28	49	49	21			
Q1123	2 STORAGE DEVICES - USE OR REFER TO DELAY LINES	26	26	23	17	49	49	21			
Q1124	2 STORAGE DEVICES - USE OR REFER TO MAGNETIC CORES OR BI-MAGS	4	3	5	17	5	5	3			
Q1125	2 STORAGE DEVICES - USE OR REFER TO MAGNETIC DRUMS	3	2	3	6	3	3	2			
Q1126	2 STORAGE DEVICES - USE OR REFER TO MAGNETIC TAPES	3	2	5	6	5	5	1			
Q1127	2 STORAGE DEVICES - USE OR REFER TO ACCESS TIME OR SPEED OF MEMORY SYSTEMS	7	5	6	6	6	6	4			
Q1128	2 STORAGE DEVICE - USE OR REFER TO STORAGE CAPACITY OF MEMORY SYSTEMS	12	11	13	8	23	23	6			
Q1129	2 STORAGE DEVICES - USE OR REFER TO VOLATILITY OF MEMORY SYSTEMS	5	4	6	8	6	6	3			
Q1130	2 STORAGE DEVICES - USE OR REFER TO LOGIC SYMBOL OF DELAY LINES	16	16	16	17	37	37	10			
Q1131	2 STORAGE DEVICES - USE OR REFER TO MAGNETIC DISKS	3	3	3	8	6	6	1			
Q1132	2 STORAGE DEVICES - USE OR REFER TO THIN FILM	2	2	2	8	6	6	1			
Q1133	2 STORAGE DEVICES - USE OR REFER TO SEMICONDUCTOR MEMORY (INTEGRATED CIRCUITS)	16	15	18	17	37	37	9			
Q1134	2 STORAGE DEVICES - USE OR REFER TO BUBBLE MEMORY	2	1	2	6	5	5	0			
Q1135	2 STORAGE DEVICES - USE OR REFER TO PUNCH CARDS	4	2	6	6	6	6	1			
Q1136	2 STORAGE DEVICES - USE OR REFER TO PAPER TAPE	2	1	3	8	2	2	0			
Q1137	2 STORAGE DEVICES - USE OR REFER TO RANDOM ACCESS MEMORY (RAM)	10	10	11	17	25	25	6			
Q1138	2 STORAGE DEVICES - USE OR REFER TO READ ONLY MEMORY (ROM) MEMORY (PROM)	15	16	15	17	37	37	10			
Q1139	2 STORAGE DEVICES - USE OR REFER TO PROGRAMMABLE READ ONLY	15	15	15	8	37	37	8			
Q1140	2 STORAGE DEVICES - USE OR REFER TO TRANSFORMER READ ONLY STORAGE (TROS)	2	2	1	8	6	6	1			
Q1141	2 STORAGE DEVICES - USE OR REFER TO CAPACITY READ ONLY STORAGE (CROS)	2	2	1	8	6	6	1			
Q1142	2 STORAGE DEVICES - INSPECT	16	22	16	25	46	46	14			
Q1143	2 STORAGE DEVICES - CLEAN	16	20	11	8	46	46	14			
Q1144	2 STORAGE DEVICES - ALIGN	12	15	9	8	32	32	10			
Q1145	2 STORAGE DEVICES - ADJUST	12	15	7	6	31	31	11			
Q1146	2 STORAGE DEVICES - TROUBLESHOOT MEMORY SYSTEMS	16	18	13	17	43	43	12			
Q1147	2 STORAGE DEVICES - REMOVE OR REPLACE SUBASSEMBLIES OR COMPONENTS	16	19	12	17	43	43	12			

PCT MBRS RESP .YES.- 303X2 DAFSC/COMMUS/O5 GRPS

PCT	MHRS	RESP	*YES*	303X2 DAFSC/COMUS/OS GRPS
<b>TASK GROUP SUMMARY</b>				
PERCENT MEMBERS PERFORMING				
01140	2	STORAGE DEVICES - TRACE SIGNAL FLOW USING LOGIC DIAGRAMS OR SCHEMATICS	5	5
		A.I.L. SKL SPC SPC SPC SPC	7 9 0' s	5
		014 016 017 022 025 026		
		DY-TSK		DIGITAL TO ANALOG AND ANALOG TO DIGITAL CONVERTERS
Q1149	3	DIGITAL-TO-ANALOG(D/A) OR ANALOG-TO-DIGITAL(A/D) CONVERTERS - WORK WITH	25	22
Q1150	3	DIGITAL-TO-ANALOG(D/A) OR ANALOG-TO-DIGITAL(A/D) CONVERTERS - COMPUTE OUTPUT VOLTAGES FOR ELECTROMECHANICAL (D/A) CONVERTERS FOR GIVEN INPUT VOLTAGES	12	12
Q1151	3	DIGITAL-TO-ANALOG(D/A) OR ANALOG-TO-DIGITAL(A/D) CONVERTERS - USE OR REFER TO THE GENERAL RULE THAT THE COUNT IN ELECTROMECHANICAL (D/A) CONVERTERS IS DETERMINED BY ADDING THE DENOMINATORS OF THE RESISTORS	8	8
Q1152	3	DIGITAL-TO-ANALOG(D/A) OR ANALOG-TO-DIGITAL(A/D) CONVERTERS - COMPUTE ANALOG VOLTAGES FOR GIVEN BINARY COUNTS IN ELECTRONIC (D/A) CONVERTER	14	13
Q1153	3	ANALOG-TO-DIGITAL (A/D) CONVERTER CIRCUITS - PERFORM TASKS ON SAMPLE FUNCTION	11	11
Q1154	3	ANALOG-TO-DIGITAL (A/D) CONVERTER CIRCUITS - PERFORM TASKS ON HOLD FUNCTION	10	10
Q1155	3	ANALOG-TO-DIGITAL (A/D) CONVERTER CIRCUITS - PERFORM TASKS ON COMPARE FUNCTION	12	11
Q1156	3	ANALOG-TO-DIGITAL (A/D) CONVERTER CIRCUITS - PERFORM TASKS ON DIGITISE FUNCTION	12	11
Q1157	3	ANALOG-TO-DIGITAL (A/D) CONVERTER CIRCUITS - DON'T KNOW WHICH FUNCTION TASKS PERFORMED ON	6	6
Q1158	3	ANALOG-TO-DIGITAL (A/D) CONVERTER CIRCUITS - USE OR REFER TO SAMPLE PUNCTUATION	13	11
Q1159	3	ANALOG-TO-DIGITAL (A/D) CONVERTER CIRCUITS - USE OR REFER TO HOLD FUNCTION	11	10
Q1160	3	ANALOG-TO-DIGITAL (A/D) CONVERTER CIRCUITS - USE OR REFER TO DIGITAL FUNCTION	12	11
Q1161	2	ANALOG-TO-DIGITAL (A/D) CONVERTER CIRCUITS - USE OR REFER TO DIGITAL FUNCTION	16	15
Q1162	3	ANALOG-TO-DIGITAL (A/D) CONVERTER CIRCUITS - PERFORM TASKS ON MECHANICAL (A/D) CONVERTERS	7	6
Q1163	3	ANALOG-TO-DIGITAL (A/D) CONVERTER CIRCUITS - PERFORM TASKS ON ELECTRONIC A/D CONVERTERS	18	17
Q1164	3	DIGITAL-TO-ANALOG (D/A) CONVERTER CIRCUITS - PERFORM TASKS ON	18	17
R1165	1	PHANTASTRON - WORK WITH PHANTASTRON CIRCUITRY	16	16
R1166	2	SCHMITT TRIGGER CIRCUITS - WORK WITH	29	23
R1167	2	SCHMITT TRIGGER CIRCUITS - TRACE DATA FLOW THROUGH SCHEMATIC DIAGRAMS OF	26	21
R1168	2	SCHMITT TRIGGER CIRCUITS - USE OR REFER TO LOGIC SYMBOLS FOR	21	20
R1169	3	CABLE FABRICATION - FABRICATE MULTICONDUCTOR CABLES	53	49
R1170	3	CABLE FABRICATION - FABRICATE COAXIAL CABLES	61	50
21171	1	INPUT/OUTPUT PERIPHERAL DEVICES ON TERMS - WORK WITH	32	28
				INPUT/OUTPUT (PERIPHERAL) DEVICES

## PCT MBR'S RESP \*YES\* - 3Q3X2 DAFSC/COUNUS/OS GRPS

TASK	GROUP SUMMARY PERCENT MEMBERS PERFORMING
	DY-TSK
\$1172 1 INPUT/OUTPUT (PERIPHERAL) DEVICES OR TERMS - USE OR REFER	5 4 6 25 2 4
TO KEYBOARDS OR TELETYPEWRITERS	
\$1173 1 INPUT/OUTPUT (PERIPHERAL) DEVICES OR TERMS - USE OR REFER	6 4 8 33 2 5
TO PRINTERS	
\$1174 1 INPUT/OUTPUT (PERIPHERAL) DEVICES OR TERMS - USE OR REFER	4 2 6 8 3 2
TO TAPE DRIVES (UNITS)	
\$1175 1 INPUT/OUTPUT (PERIPHERAL) DEVICES OR TERMS - USE OR REFER	4 2 6 17 0 2
TO CARD READERS/CARD PUNCH	
\$1176 1 INPUT/OUTPUT (PERIPHERAL) DEVICES OR TERMS - USE OR REFER	29 31 27 50 48 26
TO VIDEO DISPLAYS (CRTS)	
\$1177 1 INPUT/OUTPUT (PERIPHERAL) DEVICES OR TERMS - USE OR REFER	9 8 11 33 12 7
TO NIXIE LIGHTS (TUBES)	
\$1178 1 INPUT/OUTPUT (PERIPHERAL) DEVICES OR TERMS - USE OR REFER	23 23 22 25 51 15
TO LEDs	
\$1179 1 INPUT/OUTPUT (PERIPHERAL) DEVICES OR TERMS - USE OR REFER	9 7 10 17 11 6
TO LCDS	
\$1180 1 INPUT/OUTPUT (PERIPHERAL) DEVICES OR TERMS - USE OR REFER	11 11 11 17 23 8
TO INCANDESCENT DISPLAYS	
\$1181 1 INPUT/OUTPUT (PERIPHERAL) DEVICES OR TERMS - USE OR REFER	24 24 24 50 40 20
TO TOGGLE OR PUSH BUTTON SWITCH INPUTS	
\$1182 1 INPUT/OUTPUT (PERIPHERAL) DEVICES OR TERMS - USE OR REFER	2 7 10 8 15 5
TO INTERFACE ADAPTER UNITS	
\$1183 1 INPUT/OUTPUT (PERIPHERAL) DEVICES OR TERMS - USE OR REFER	2 2 5 8 2 2
TO TAPE READERS	
\$1184 1 INPUT/OUTPUT (PERIPHERAL) DEVICES OR TERMS - USE OR REFER	3 1 4 8 2 1
TO TAPE PUNCHES	
<u>\$1185 2 PHOTO-SENSITIVE DEVICES - WORK WITH</u>	<u>19 19 20 21 26 17</u>
<u>\$1186 3 SYNCHRONOUS VIBRATIONS (CHOPPER CIRCUITS) - WORK WITH</u>	<u>20 19 21 8 23 2C</u>
SYNCHRONOUS VIBRATIONS (CHOPPER CIRCUITS) - WORK WITH	SYNCHRONOUS VIBRATIONS
TO EXCITATION FREQUENCIES	(CHOPPER CIRCUITS)
<u>\$1187 3 SYNCHRONOUS VIBRATIONS (CHOPPER CIRCUITS) - USE OR REFER</u>	<u>12 11 14 6 12 11</u>
SYNCHRONOUS VIBRATIONS (CHOPPER CIRCUITS) - USE OR REFER	
<u>\$1188 3 SYNCHRONOUS VIBRATIONS (CHOPPER CIRCUITS) - USE OR REFER</u>	<u>12 12 13 8 14 12</u>
TO VOLTAGE-CURRENT PHASE RELATIONSHIPS	
<u>\$1189 3 SYNCHRONOUS VIBRATIONS (CHOPPER CIRCUITS) - MEASURE</u>	<u>1C 1C 10 6 14 9</u>
CHOPPER COIL EXCITATION FREQUENCIES	
<u>\$1190 3 SYNCHRONOUS VIBRATIONS (CHOPPER CIRCUITS) - MEASURE</u>	<u>1C 1C 10 6 14 9</u>
CHOPPER COIL VOLTAGE-CURRENT PHASE RELATIONSHIPS	
<u>\$1191 3 SYNCHRONOUS VIBRATIONS (CHOPPER CIRCUITS) - USE SERVOS</u>	<u>1C 1C 10 8 14 16</u>
IN CONJUNCTION WITH CHOPPER CIRCUIT OPERATION	
<u>\$1192 3 SYNCHRONOUS VIBRATIONS (CHOPPER CIRCUITS) - USE</u>	<u>1C 1C 10 8 14 16</u>
DETECTORS IN CONJUNCTION WITH CHOPPER CIRCUIT OPERATION	
<u>\$1193 3 SYNCHRONOUS VIBRATIONS (CHOPPER CIRCUITS) - USE ERROR</u>	<u>1C 1C 10 8 14 16</u>
SIGNAL DEVICES IN CONJUNCTION WITH CHOPPER CIRCUIT	
OPERATION	
<u>\$1194 3 SYNCHRONOUS VIBRATIONS (CHOPPER CIRCUITS) - USE</u>	<u>1C 1C 10 8 14 16</u>
COMPARISON CIRCUITS IN CONJUNCTION WITH CHOPPER CIRCUIT	
OPERATION	
<u>\$1195 1 INFRARED SYSTEMS - WORK WITH</u>	<u>2 2 1 2 2 2</u>
INFRARED SYSTEMS	

OCCUPATIONAL ANALYSIS PROGRAM  
USAFCOMC (ATC) RANDOLPH AFB IX

**PCT MBR RESP \*YES\*- 3Q3X2 OAFCSCONUS/92 GRPS**

**OCCUPATIONAL ANALYSIS PROGRAM  
USAFCOM (ATC) RANDOLPH AFB TX**

PCT MEMRS RESP \*YES\*- 303X2 DAFSC/CONUS/OS GRPS

OCCUPATIONAL ANALYSIS PROGRAM  
USAFORC (ATC), RANDOLPH AFB, TX

TASK GROUP SUMMARY  
PERCENT MEMBERS PERFORMING

	DY-TSM	ALL.	SKL	SKL	US	0's
		SPC	SPC	SPC	SPC	SPC
		014	016	017	022	025
	MIRRORS - USE OR REFER TO MONOCHROMATIC	0	0	0	0	0
	11243 2 LASER SYSTEMS - WORK WITH ACTIVE MATERIALS	0	0	0	0	0
	11244 2 LASER SYSTEMS - WORK WITH PUMPING SOURCES	0	0	0	0	0
	11245 2 LASER SYSTEMS - WORK WITH FULL SILVERED (100% REFLECTIVE)	0	1	0	0	1
	MIRRORS					
	11247 2 LASER SYSTEMS - WORK WITH HALF SILVERED (92% REFLECTIVE)	0	0	0	0	0
	MIRRORS					
	11248 2 LASER SYSTEMS - WORK WITH HELICAL FLASHTUBES	0	0	0	0	0
	11249 2 LASER SYSTEMS - WORK WITH RUBY	0	0	0	0	0
	11250 2 LASER SYSTEMS - WORK WITH HELIUM-NEON	0	0	0	0	0
	11251 2 LASER SYSTEMS - WORK WITH HELIUM-XENON	0	0	0	0	0
	11252 2 LASER SYSTEMS - WORK WITH XENON	0	0	0	0	0
	11253 2 LASER SYSTEMS - WORK WITH CESIUM-HELIUM	0	0	0	0	0
	11254 2 LASER SYSTEMS - WORK WITH ARGON	0	0	0	0	0
	11255 2 LASER SYSTEMS - WORK WITH NEODYMIUM IN GLASS	0	0	0	0	0
	11256 2 LASER SYSTEMS - WORK WITH GALLIUM ARSENIDE	0	0	0	0	0
	11257 3 DISPLAY TUBES - WORK WITH DISPLAY TUBES, SUCH AS DIRECT	2	1	8	2	2
	VIEW STORAGE (DVST), MULTIPLE MODE STORAGE TUBES (MMST),					
	OP SCAN CONVERTER TUBES (SCST)					
	11258 3 DISPLAY TUBES - DIRECT VIEW STORAGE (DVST) OR MULTIPLE	1	2	1	6	0
	MODE STORAGE (MMST) - INSPECT					
	11259 3 DISPLAY TUBES - DIRECT VIEW STORAGE (DVST) OR MULTIPLE	1	2	1	7	0
	MODE STORAGE (MMST) - CLEAN					
	11260 3 DISPLAY TUBES - DIRECT VIEW STORAGE (DVST) OR MULTIPLE	1	1	1	6	0
	MODE STORAGE (MMST) - TROUBLESHOOT CIRCUITS					
	11261 3 DISPLAY TUBES - DIRECT VIEW STORAGE (DVST) OR MULTIPLE	1	1	1	6	0
	MODE STORAGE (MMST) - ADJUST OR CALIBRATE					
	11262 3 DISPLAY TUBES - DIRECT VIEW STORAGE (DVST) OR MULTIPLE	1	2	1	8	0
	MODE STORAGE (MMST) - REMOVE OR REPLACE TUBES FROM MAJOR					
	ASSEMBLIES OR UNITS					
	11263 3 DISPLAY TUBES - DIRECT VIEW STORAGE (DVST) OR MULTIPLE	1	1	1	6	0
	MODE STORAGE (MMST) - PERFORM TASKS THAT MAKE IT NECESSARY					
	TO NAME VARIOUS ELEMENTS OF DVST					
	11264 3 DISPLAY TUBES - DIRECT VIEW STORAGE (DVST) OR MULTIPLE	0	0	0	0	0
	MODE STORAGE (MMST) - PERFORM TASKS THAT MAKE IT NECESSARY					
	TO NAME VARIOUS ELEMENTS OF MMST					
	11265 3 DISPLAY TUBES - DIRECT VIEW STORAGE (DVST) OR MULTIPLE	0	0	0	0	0
	MODE STORAGE (MMST) - PERFORM TASKS THAT MAKE IT NECESSARY					
	TO NAME VARIOUS ELEMENTS OF MMST					
	11266 3 DISPLAY TUBES - SCAN CONVERTER TUBES (SCST) - PERFORM					
	TASKS THAT MAKE IT NECESSARY TO NAME VARIOUS ELEMENTS OF					
	SCST					
	11267 3 DISPLAY TUBES - PERFORM TASKS ON FLOOD GUNS	0	0	0	0	0
	11268 3 DISPLAY TUBES - PERFORM TASKS ON WRITE GUNS	0	1	1	3	2
	11269 3 DISPLAY TUBES - PERFORM TASKS ON READ GUNS	1	1	1	3	2
	11270 3 DISPLAY TUBES - PERFORM TASKS ON ATTACK GUNS	0	0	0	0	0
	11271 3 DISPLAY TUBES - PERFORM TASKS ON ERASE GUNS	1	1	8	0	2

OCCUPATIONAL ANALYSIS PROGRAM  
USAFAOMC (ATC) RANDOLPH AFB TX

PCT MEMRS RESP. YES - 303X2 DAFSC/CONUS/OS GRPS.

TASK GROUP SUMMARY  
PERCENT MEMBERS PERFORMING

OY-TSK	PERCENT MEMBERS PERFORMING									
	5	7	9	5	7	9	5	7	9	5
	ALI	SKL	SKL	SPC	SPC	SPC	SPC	SPC	SPC	SPC
	014	016	C17	022	025	026				
11273 3 DISPLAY TUBES - PERFORM TASKS ON STORAGE GRIDS	1	1	0	8	0	0	2	2	2	2
11274 4 TELEVISION (TV) SYSTEMS - PERFORM TASKS DEALING WITH TV SYSTEMS INCLUDING LOW LIGHT TV	2	2	2	25	2	2	2	2	2	2
11275 4 TELEVISION (TV) SYSTEMS - INSPECT	0	0	0	25	0	0	0	0	0	0
11276 4 TELEVISION (TV) SYSTEMS - CLEAN	1	1	0	8	2	2	0	0	0	0
11277 4 TELEVISION (TV) SYSTEMS - ADJUST	1	1	0	8	0	0	1	1	0	1
11278 4 TELEVISION (TV) SYSTEMS - OPERATE	1	1	1	8	0	0	1	1	0	0
11279 4 TELEVISION (TV) SYSTEMS - TROUBLESHOOT WIRE CONNECTIONS OF	0	0	0	8	0	0	0	0	0	0
11280 4 TELEVISION (TV) SYSTEMS - TROUBLESHOOT MAJOR ASSEMBLIES OF	0	0	0	8	0	0	0	0	0	0
11281 4 TELEVISION (TV) SYSTEMS - TROUBLESHOOT DOWN TO COMPONENT PARTS	0	0	0	8	0	0	0	0	0	0
11282 4 TELEVISION (TV) SYSTEMS - REMOVE OR REPLACE MAJOR ASSEMBLIES	0	0	0	8	0	0	0	0	0	0
U1283 1 PARTS	0	0	0	8	0	0	0	0	0	0
U1284 1 PROGRAMMING - PERFORM PROGRAMMING TASKS	6	7	5	8	18	4	PROBLEMS			
U1285 1 PROGRAMMING - USE OR REFER TO DECIMAL SYSTEMS	5	6	5	8	17	2				
U1286 1 PROGRAMMING - USE OR REFER TO OCTAL SYSTEMS	5	5	4	8	14	2				
U1287 1 PROGRAMMING - USE OR REFER TO HEXADECIMAL SYSTEMS	2	2	1	8	5	1				
U1288 1 PROGRAMMING - USE OR REFER TO B-4-2-1 SYSTEMS	1	1	1	8	3	0				
U1289 1 PROGRAMMING - USE OR REFER TO FOUR SYSTEMS	1	1	1	8	3	0				
U1290 1 PROGRAMMING - USE OR REFER TO BINARY SYSTEMS	5	6	5	8	16	2				
U1291 1 PROGRAMMING - USE OR REFER TO TIME-SHARING (MULTI-SEQUENCING)	6	5	3	8	14	3				
U1292 1 PROGRAMMING - USE OR REFER TO DATA WORDS	5	5	3	8	12	3				
U1293 1 PROGRAMMING - USE OR REFER TO ADDRESS WORDS	5	5	4	8	14	2				
U1294 1 PROGRAMMING - USE OR REFER TO ADDRESS/SUBADDRESS	4	4	3	8	9	2				
U1295 1 PROGRAMMING - USE OR REFER TO STEERING/INFORMATION WORDS	3	3	2	8	8	1				
U1296 1 PROGRAMMING - USE OR REFER TO INSTRUCTION WORDS	4	4	3	8	9	2				
U1297 1 PROGRAMMING - USE OR REFER TO DAP-16	2	1	0	8	3	0				
U1298 1 PROGRAMMING - USE OR REFER TO BINARY CODED DECIMAL (BCD)	5	6	4	6	17	2				
U1299 1 PROGRAMMING - USE OR REFER TO CONTROL WORDS	3	3	3	8	8	1				
U1300 1 PROGRAMMING - USE OR REFER TO RESPONSE WORDS	2	1	0	6	6	1				
U1301 1 PROGRAMMING - USE OR REFER TO WRAPAROUND WORDS	1	1	0	6	7	1				
U1302 1 PROGRAMMING - USE OR REFER TO RELIABILITY PROGRAMS	5	4	8	14	2					
U1303 1 PROGRAMMING - USE OR REFER TO COMPILERS	2	2	1	3	6	1				
U1304 1 PROGRAMMING - USE OR REFER TO ASSEMBLERS	1	1	1	8	3	1				
U1305 1 PROGRAMMING - USE OR REFER TO MACHINE LANGUAGE	1	1	2	8	3	0				
U1306 1 PROGRAMMING - USE OR REFER TO MNEMONICS	2	2	2	8	6	0				
U1307 1 PROGRAMMING - USE OR REFER TO ROUTINES OR SUBROUTINES	3	1	4	8	5	1				
U1308 1 PROGRAMMING - USE OR REFER TO FLOW CHARTS OR DIAGRAMS	4	4	4	8	15	1				
U1309 1 PROGRAMMING - USE OR REFER TO ATLAS	0	0	0	6	3	0				
U1310 1 PROGRAMMING - USE OR REFER TO ELAN	0	1	0	6	3	0				

PCT MPRS ANALYSIS FOR MARCOM INNOVATION

ACCUPROFESSIONAL ANALYSIS PROGRAM  
USAFCOM (ATC) RANDOLPH AFB TX

TASK GROUP SUMMARY  
PERCENT MACHINES PERFORMING

		A.I.	SKL	7	9	5	5
		SFC	SPC	SPC	SPC	SPC	SPC
		014	016	017	022	025	027
<b>GY-TSK</b>							
U1311	1 PROGRAMMING SYSTEMS - PERFORM TASKS ON SINGLE LEVEL	2	1	3	0	5	1
U1312	1 PROGRAMMING SYSTEMS - PERFORM TASKS ON MULTI-LEVEL	1	1	2	0	3	0
L1313	1 PROGRAMMING - WRITE PROGRAMS FOR TROUBLESHOOTING OF	1	1	1	0	3	0
L1314	1 SPECIFIC CIRCUITS - USE PROGRAMS FOR TROUBLESHOOTING OF	3	4	2	8	11	2
<b>SPECIFIC CIRCUITS</b>							
J1315	1 DIGITAL COMPUTERS - PERFORM TASKS ON CONTROL SECTIONS	4	4	3	8	14	1
U1316	1 DIGITAL COMPUTERS - P. FORM TASKS ON INPUT SECTIONS	4	5	3	6	17	2
U1317	1 DIGITAL COMPUTERS - P. FORM TASKS ON OUTPUT SECTIONS	4	5	3	8	17	2
U1318	1 DIGITAL COMPUTERS - P. FORM TASKS ON MONITOR SECTIONS	4	5	3	8	15	2
U1319	1 DIGITAL COMPUTERS - P. FORM TASKS ON TRANSMIT SECTION	3	4	2	6	11	1
U1320	1 DIGITAL COMPUTERS - P. FORM TASKS ON RECEIVING SECTION	3	4	2	6	11	1
U1321	1 DIGITAL COMPUTERS - P. FORM TASKS ON INPUT DEVICE	3	4	2	6	17	2
U1322	1 DIGITAL COMPUTERS - P. FORM TASKS ON STORAGE, OF WHICH	3	4	2	6	17	2
U1323	1 DIGITAL COMPUTERS - P. FORM TASKS ON OUTPUT DEVICES	3	4	2	6	17	2
U1324	1 DIGITAL COMPUTERS - P. FORM TASKS ON POWER DEVICES	3	4	2	6	11	1
U1325	1 MM. OP. PROCESSOR EQUIPMENT - USE TO PERFORM TASKS ON	4	3	8	14	1	1
U1327	1 MM. AND POWER EQUIPMENT - USE ELECTRO-EXPRESS	4	4	3	8	11	2
<b>MM. AND POWER EQUIPMENT</b>							
U1326	1 MM. PROCESSOR - USE COMPUTER TO COMPUTE OUTPUT	2	2	3	6	23	33
<b>MM. PROCESSOR</b>							
U1327	1 MM. AND POWER EQUIPMENT - USE LOGARITHMS TO COMPUTE	3	2	3	4	26	33
<b>MM. AND POWER EQUIPMENT</b>							
U1328	2 MM. AND POWER EQUIPMENT - USE VTRM (DE-ATTEN) TO CHECK FOR	5	7	6	13	27	51
<b>MM. AND POWER EQUIPMENT</b>							
U1329	2 MM. AND POWER EQUIPMENT - USE VTRM (DE-ATTEN) TO CHECK FOR	29	15	20	33	22	14
<b>MM. AND POWER EQUIPMENT</b>							
U1330	2 MM. AND POWER EQUIPMENT - USE VTRM (DE-ATTEN) TO CHECK FOR	5	4	6	27	5	3
<b>MM. AND POWER EQUIPMENT</b>							
U1331	2 MM. AND POWER EQUIPMENT - USE VTRM (DE-ATTEN) TO ALIGN ANGLES, POSITION	4	4	4	5	5	3
<b>MM. AND POWER EQUIPMENT</b>							
U1332	2 MM. AND POWER EQUIPMENT - USE VTRM (DE-ATTEN) TO ALIGN ANGLES, POSITION	4	4	4	5	5	3
<b>MM. AND POWER EQUIPMENT</b>							
U1333	3 MM. AND POWER EQUIPMENT - USE VTRM (DE-ATTEN) TO ALIGN ANGLES, POSITION	4	4	4	5	5	3
<b>MM. AND POWER EQUIPMENT</b>							
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